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YEARBOOK NUMBER

January 25, 1958

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YEARBOOK NUMBER

Vol. 56 **January 25, 1958** **No. 1**

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The Cover

● From the ancient culture of Peru comes the cover of this Yearbook Number of **Pacific Fisherman,** a ceramic huaco from the Fourth Century A.D. . . . Modeled by a Nasca craftsman a thousand years before Columbus sailed from Spain, this pottery jug represents a bonito who has filled his belly with anchovies, as bonito do today. . . . These huacos, depicting every aspect of the life of prehistoric Peru, which had no written language, provide much of what men now know about the astonishing culture which flourished there long before America was discovered by Europeans. It has remained for the past dozen years to reveal the remarkable possibilities of the fisheries of Peru and their fascinating industrial potential.

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- Indonesia
- Korea
- Mexico
- New Zealand
- Norway
- Pakistan
- Panama
- Peru
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- Sudan
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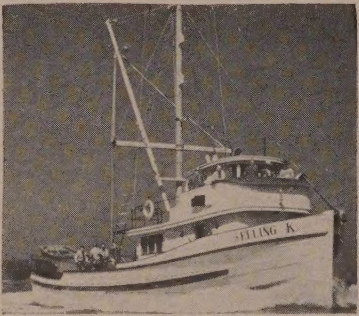
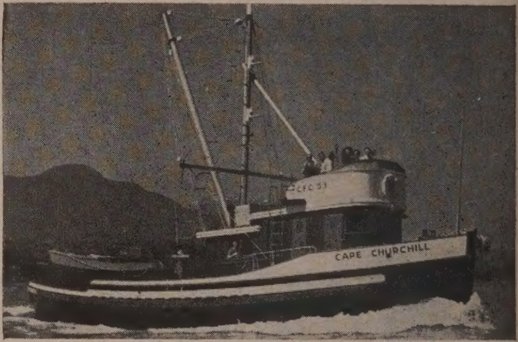
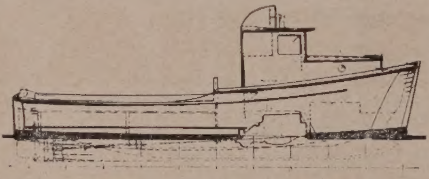
- Uruguay
- Venezuela

(Below) ELLING K.—This 75′ x 20′ x 10′3″ wood purse seiner of H. C. Hanson design won its spurs in the British Columbia herring and salmon fisheries. Norwegian fishing interests are now planning a program of construction of this multi-purpose type vessel. Power: 275-hp. Diesel. Speed: 11.4 knots.

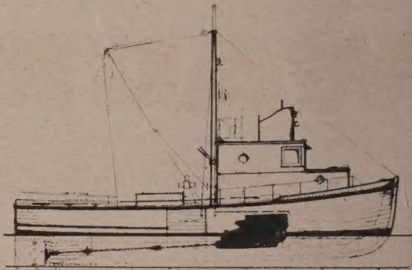




(Above) CAPE CHURCHILL — Modern 65′ x 17′4″ x 8′3″ wood combination seiner and dragger designed by H. C. Hanson. Three sturdy seine boats from this design were built in Denmark recently for service in the Chilean fisheries.

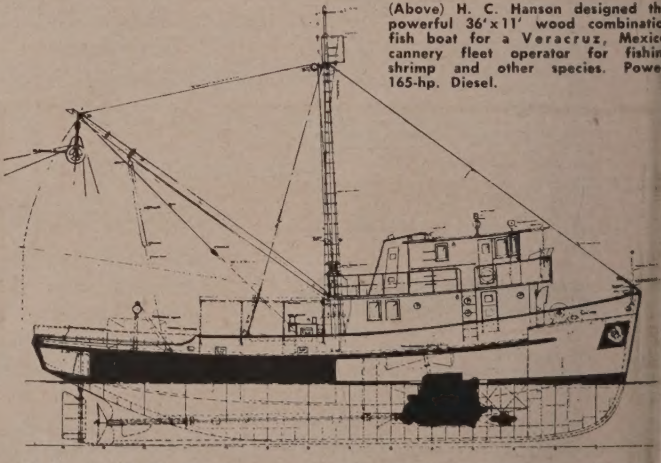


(Above) This sturdy 32′ x 10′ x 2′ shallow-draft, vee-bottom, gillnetter of wood construction is another popular H. C. Hanson design. Sawn frames. Tunnel stern. Power: 140-hp. gasoline engine.



(Above) H. C. Hanson designed this powerful 36′ x 11′ wood combination fish boat for a Veracruz, Mexico cannery fleet operator for fishing shrimp and other species. Power 165-hp. Diesel.

(Right) Stylish 74′ x 19′8″ x 10′7½″ welded steel combination fish boat designed by H. C. Hanson as an exploratory fishing vessel for India. Vee Bottom. Suitable for seining and dragging.



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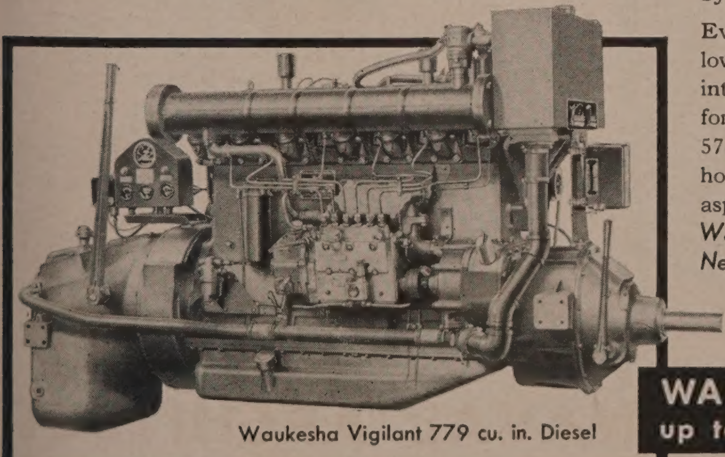

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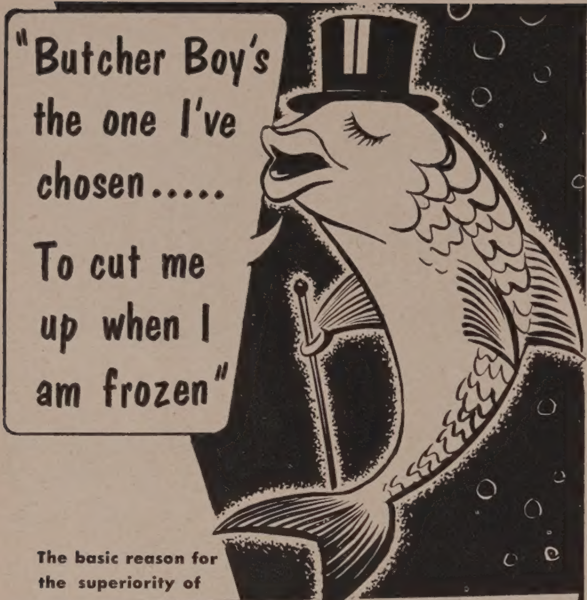
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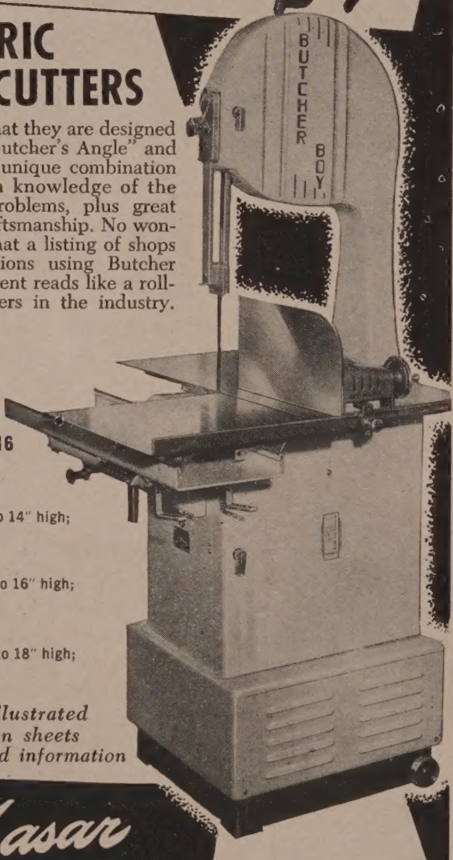

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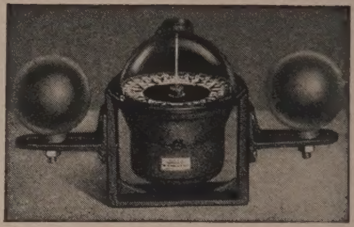

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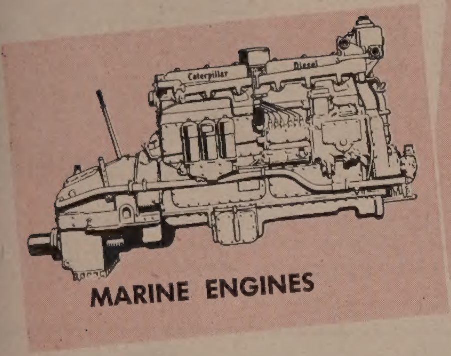

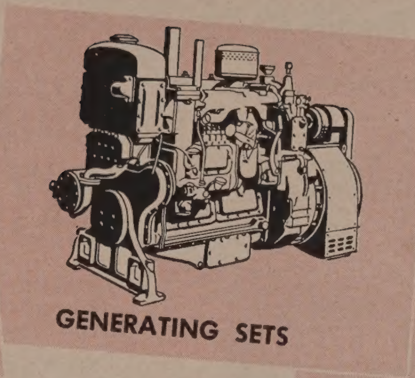

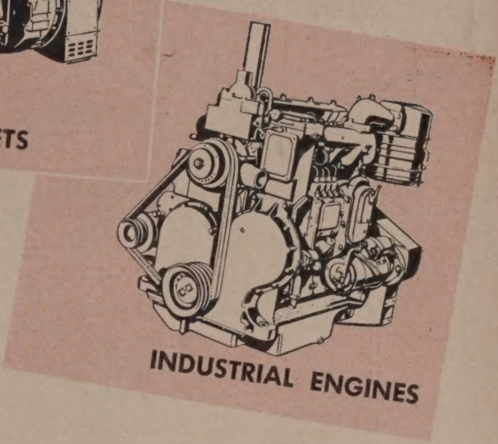

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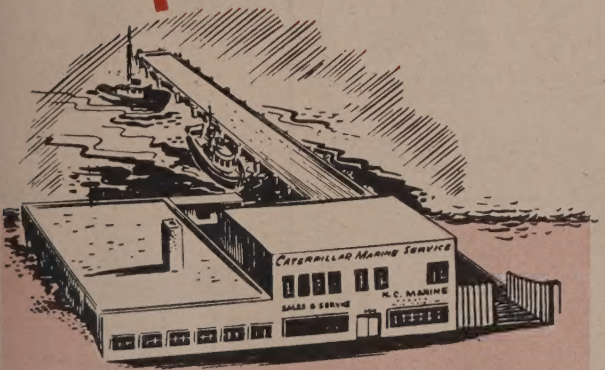

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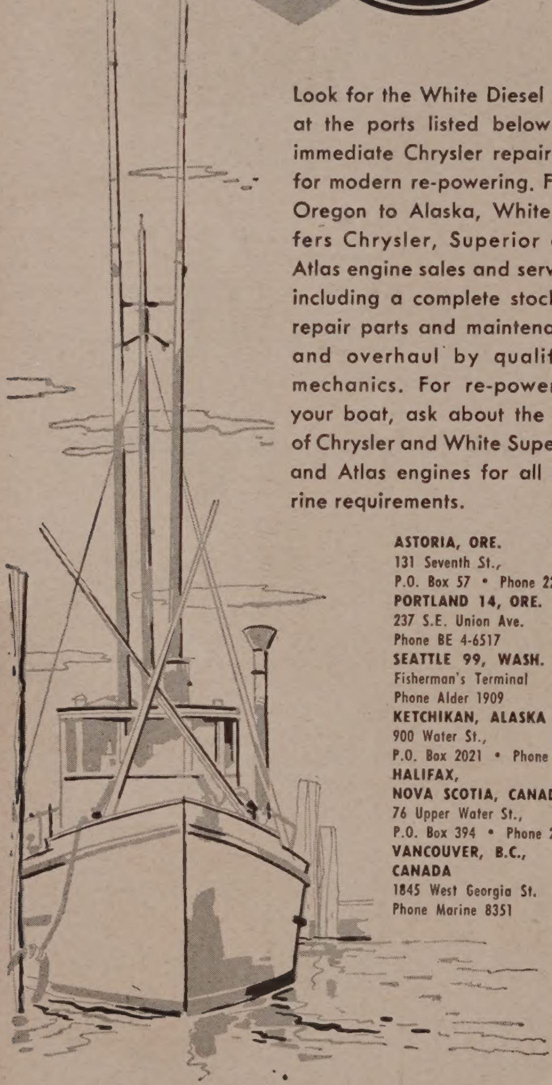

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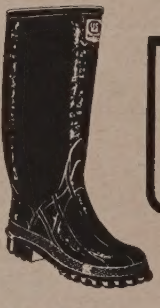

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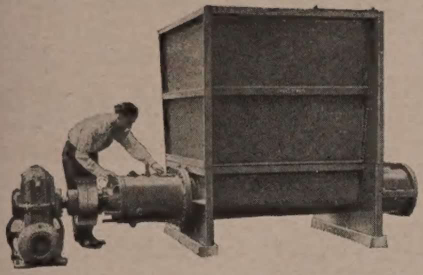

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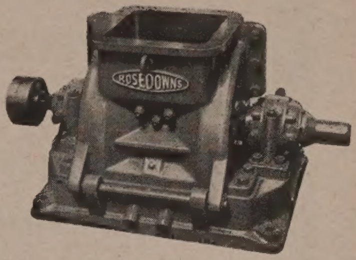

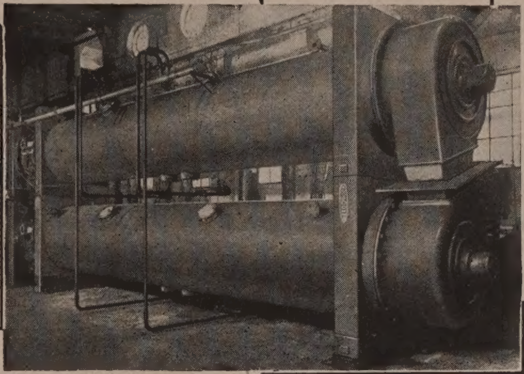

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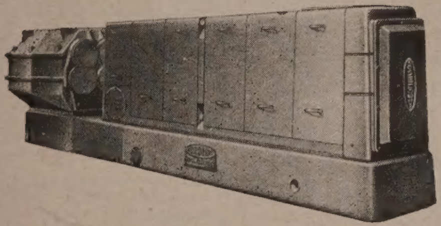

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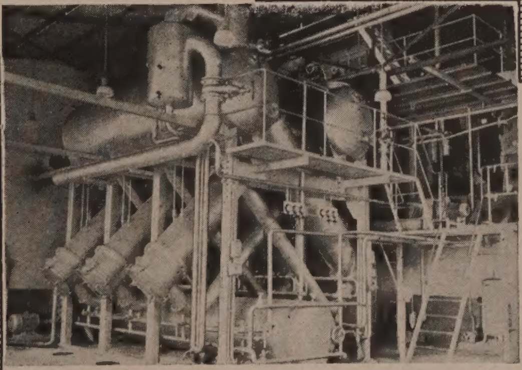

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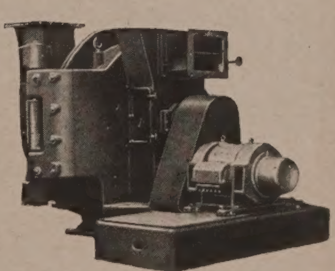

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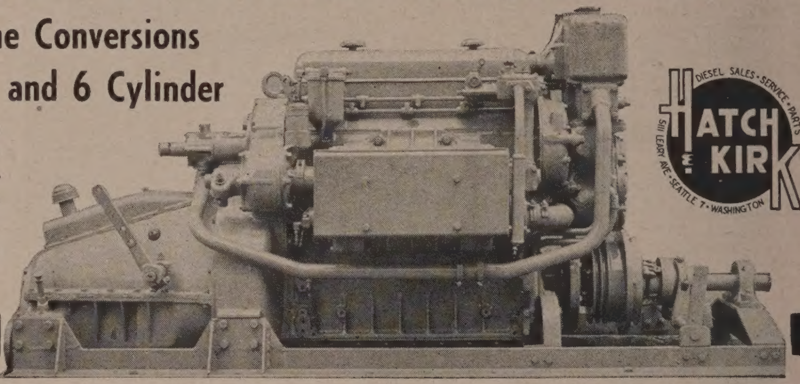

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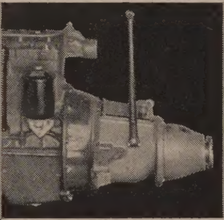

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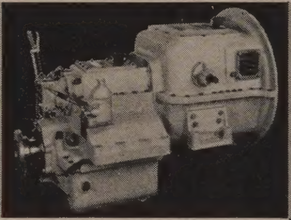

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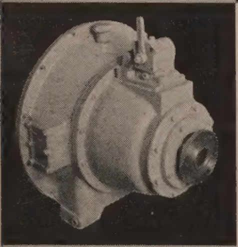

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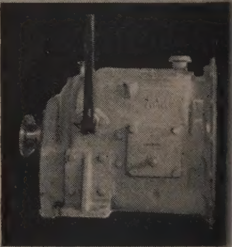

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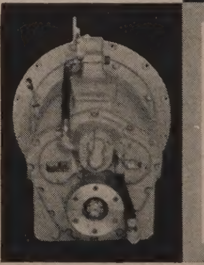

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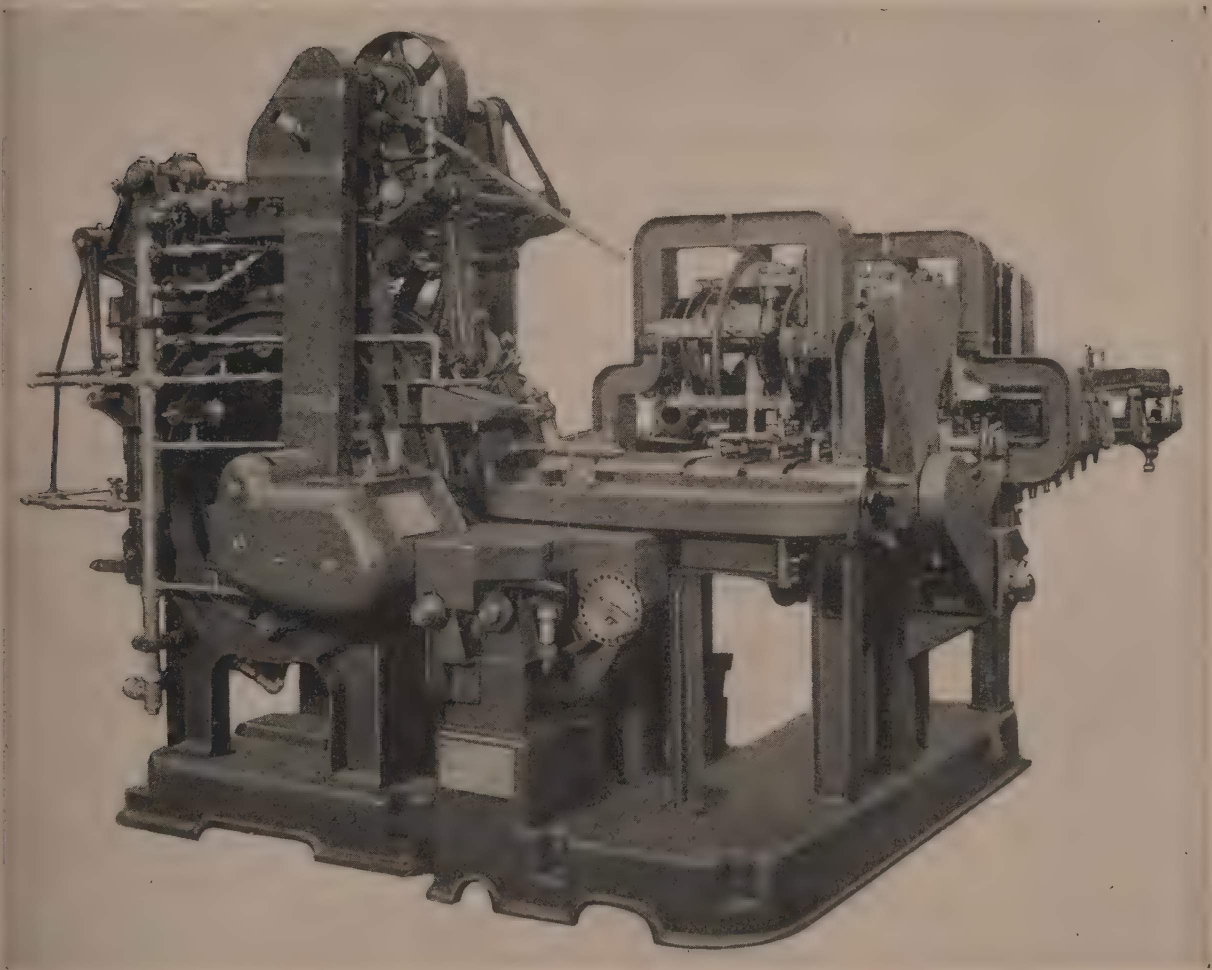

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WE SUPPLY EVERY COMMERCIAL FISHING NEED!

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1000 tons — 200 ft.

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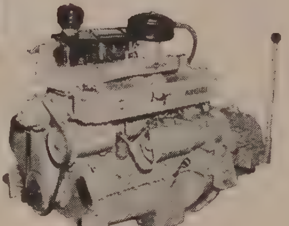

FORD MARINE DIESEL
4 Cylinder 56 H.P.
6 Cylinder 85 H.P.

NORSEMAN MARINE
23 to 155 H.P.

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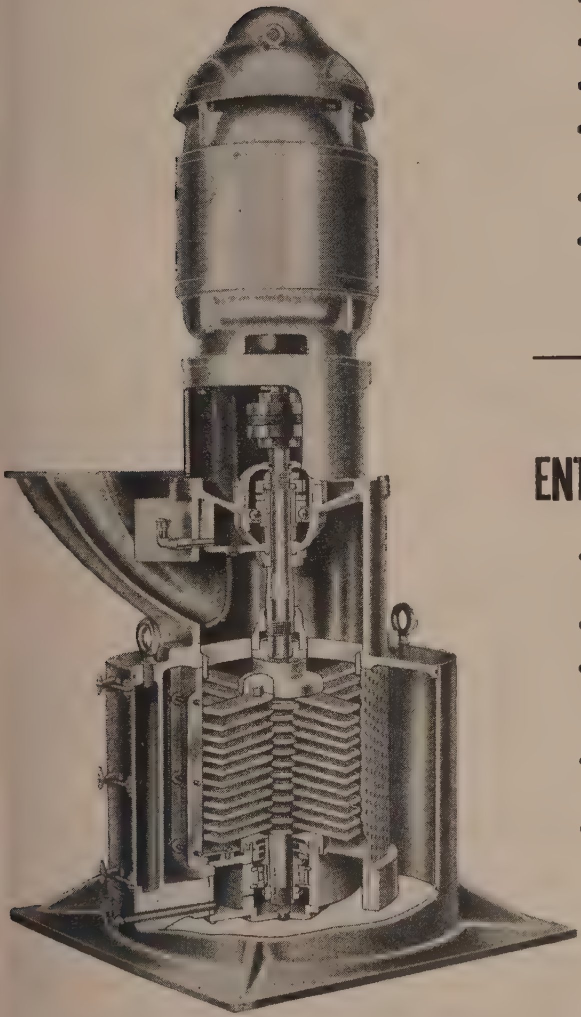
Enterprise Equipment for Fish Reduction

TWO NEWLY DESIGNED QUALITY ITEMS FOR HIGH CAPACITY



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- Four sizes, capacities from 500 lbs. to 14 tons per hour!
- High speed mills for high capacities.
- Lower speeds for other applications.
- Consistently produce better quality meal.
- Simple maintenance, hammers and screen changed in minutes.
- Hammer pin heads shielded from wear.
- Oil lubricated, trouble-free bearings.

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- Available in three sizes with capacities up to 17 tons per hour!
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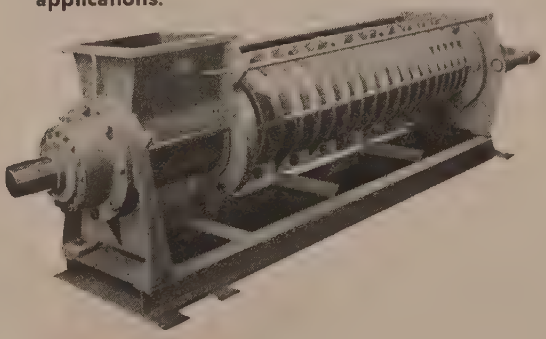
- Quick-opening screen grids simplify screen changes and maintenance.
- Wide choice of screens and screws for various applications.



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Marine Diesel Engines

Allis-Chalmers offers you a complete line of Marine Diesel Engines with a power range from 60 H.P. to 400 H.P. Allis-Chalmers Diesel Auxiliary Generator Sets are available in sizes from 5 to 300 KW.

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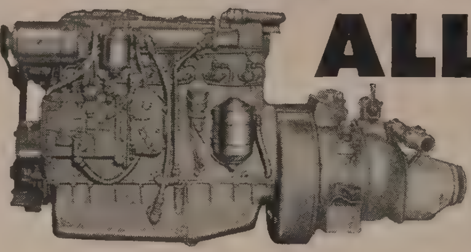

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TARPON .... 130 H.P.
MARLIN .... 110 H.P.
BULLET .... 110 H.P.
BLUEFIN .... 105 H.P.
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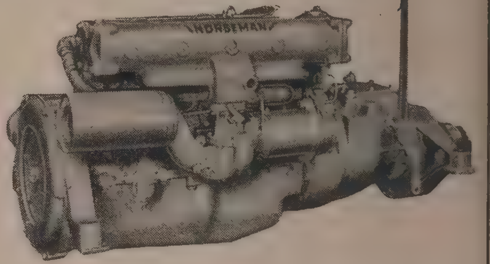
COLT .... 60 H.P.
ELF .... 23 H.P.



WESTERN-FORD DIESELS — Two Models—60 and 96 H.P.

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Z-NICKEL Corrosion Resisting—Two patterns for immediate delivery

O'Shaughnessy sizes—2, 1, 1/0, 3/0, 5/0, 7/0, 9/0, 11/0

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Commercial, Sport, and Specials. All types, sizes and finishes. Try our newly developed Var-Gold finish on steel hooks. Best known to date for salt and fresh water.

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Write and let us know patterns and sizes you are interested in. New catalog now available.

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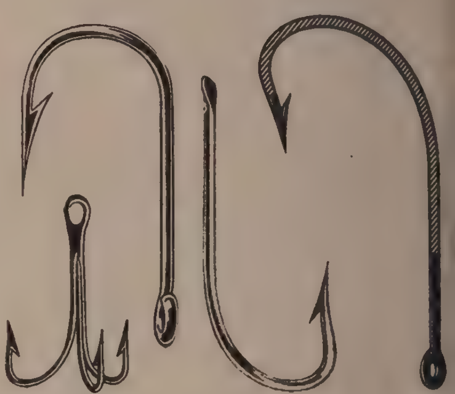

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CUSTOM BUILT to Meet the Requirements of the FISHING INDUSTRY with

Longer Battery Life
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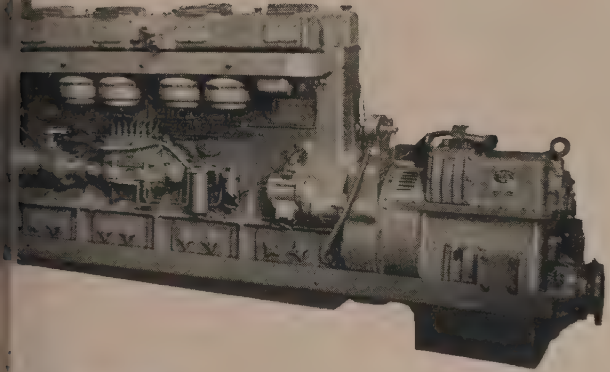
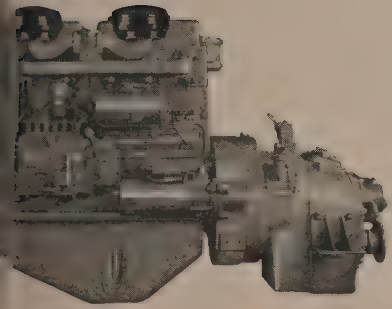
LLIS-CHALMERS MARINE DIESELS

A COMPLETE LINE...

SERVICE ROUND
THE WORLD





Install a powerful, rugged Allis-Chalmers Marine Diesel in your boat and get the same money-making economy and dependability that make Allis-Chalmers Marine Diesels the first choice of owners and operators all over the world. Remember — fast, easy starting, smooth, quiet, trouble-free operation and maximum fuel economy are guaranteed when an Allis-Chalmers Diesel powers *your* boat. Your nearby Allis-Chalmers Marine dealer will be glad to show you how Allis-Chalmers diesels can increase your profits the first day they go to work for you. Write for full details and the name of your dealer.

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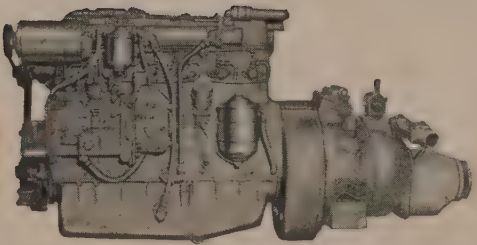
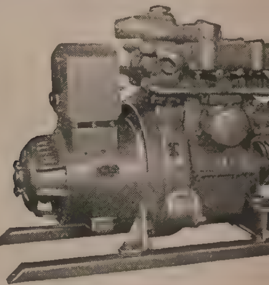
Allis-Chalmers auxiliary generator sets in sizes from 5 to 300 KW. 7½ KW diesel electric set shown below.

DEPENDABLE POWER FOR EVERY NEED





E	NO. CYL.	BORE & STROKE	CU. IN. DISPL.	TUGS, FISH BOATS, COMMERCIAL CRAFT	MAX HP @ RPM
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MR-779	6	5¼ x 6	779	148 @ 1800	185 @ 2100
MR-844	6	5¼ x 6½	844	166 @ 1800	215 @ 2000
SMR-844 ercharged)	6	5¼ x 6½	844	200 @ 1800	275 @ 2000
MR-1125	8	5¼ x 6½	1125	215 @ 1800	285 @ 2000
TMR-1125 ocharged)	8	5¼ x 6½	1125	255 @ 1600	385 @ 2000
BMR-1879	6	6¾ x 8¾	1879	235 @ 1200	263 @ 1300
MR-2505	8	6¾ x 8¾	2505	296 @ 1200	388 @ 1300
SMR-2505 ercharged)	8	6¾ x 8¾	2505	400 @ 1200	516 @ 1300

BM-10-B

ALLIS-CHALMERS A-C ALLIS CHALMERS

FISHING VESSELS ARE NOT BUILT TOO LARGE FOR THIS YARD TO HANDLE

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A YARD THAT IS CONSTANTLY IMPROVING ITS FACILITIES—IN GOOD TIMES OR BAD—FOR BETTER SERVICE TO THE PACIFIC COAST COMMERCIAL FISHING FLEETS.

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WE SPECIALIZE IN

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SEE US. Our work is thorough—our charges are reasonable.

Albacore Fishermen Everywhere: It is important to know, when you leave your home port next Albacore Season, where you can quickly, safely and economically haul out and get service and repairs.

EIGHT MARINE R'WAYS
For prompt and safe handling REMEMBER THIS.

SAN DIEGO MARINE CONSTRUCTION CO.

SAN DIEGO, CALIFORNIA

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BRYANT'S *Marina*

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FOR YOUR EVERY BOATING NEED

POWER YOU CAN COUNT ON...

From heaviest duty Chris Craft engines to the smallest of outboards, Bryant's have the power plant you want. Proved performance at far lower cost . . . saving you up to $900 over conventional installations. And now you can power with up to 50 h.p. with an outboard, the '58 Evinrude Starflite, the world's first V-4 outboard motor. The Starflite gives far greater speed, light or loaded, with the maneuverability and saving of space of an outboard. Evinrude outboards, from 3 h.p. to 50 h.p., will meet the widest range of work boat needs.

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SONAR MARINE RADIO TELEPHONE, 65 watts, 6 channels with broadcast band for weather, that operates on either 6 or 12 volt DC. Meets and exceeds all FCC and Coast Guard regulations. Only **$395.00**

SONAR DEPTH INDICATOR that is accurate, rugged and reports on 4" scale each 1 foot of depth for a complete 360°. Sonar depth indicators will spot fish, wrecks, contours, obstructions, type of bottom with a maximum of efficiency. Only **$139.50**

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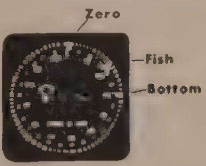
Navigational Instruments

Whatever your need—from anchors to zinc collars—you'll find it at Bryant's . . . chains, shackles, swivels, compasses, marine pumps, fog horns, tachometers, barometers, clocks, radios, radio phones, fire extinguishers, marine paints . . .

Everything for Boats

Portable Sonar depth indicators are complete with transducer and 6 volt rechargeable battery for $198.50.

Sonar depth indicator, complete with transducer, gimbal, fairing block, for 6 or 12 volts, can be installed in just a few minutes while boat is in the water. Highly sensitive, it reports as low as one foot, with reading to 125 feet on the first revolution, 125-250 feet on second revolution.



Sonar Depth Indicator

BRYANT'S *Marina*

1117 East Northlake, Seattle 5, Washington
Center Division Street Bridge, Spokane, Washington

NEARLY A QUARTER CENTURY OF LEADERSHIP IN BOATING

"FOR LONGEST NET LIFE"

it's

MARLON

(Trademark)

Tony Dileva, skipper-owner of the San Antonio IV, San Pedro, California, praises high quality of Marlon netting.

RESISTS ROT **LONG LASTING**

LIGHT WEIGHT **KNOTS STAY TIGHT**

NO PRESERVATIVES NEEDED

HIGH TENSILE STRENGTH

Says Capt. Dileva, "We've had our Marlon net two years. I think it is the finest netting made today. After two years of constant use, our Marlon net looks as good today as it did when new. And it has had plenty of use, for we fish the year around and use it—the same net—for sardines, mackerel and tuna."

Skipper Dileva's Marlon net is 260 fathoms long, 32 fathoms deep, with 1½-inch stretched mesh. He also is installing a Marlon fish bag 25 fathoms long and 400 meshes deep.

San Antonio IV is 78′ x 19′ 6″. She was built by the Al Larson Boat Shop, Terminal Island, California. She has a 125-ton fish carrying capacity.

Marlon Menhaden Seine ★ Marlon Mackerel Seine ★ Marlon Herring Seine
Marlon Tuna Seine ★ Marlon Salmon Seine ★ Marlon Sardine Seine
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Just as important, Continental also gives you *complete* fish can service ... improved high speed closing equipment, individual research and engineering assistance from our West Coast laboratories and machinery service centers, and the benefits of new developments from our new Chicago Research and Development Center. Remember, for *complete* fish can service, call Continental.

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with **STARR NYLON NETTING**

(Made from 100% DuPont Nylon)

Clean, sharp and uniformly knotted to perfection, Starr Nylon Netting has the *look* of quality . . .

Rugged, yet lightweight, Starr Nylon Netting has the feel *of dependability.*

Expertly made by experienced hands, Starr Nylon Netting has the bonus feature of long run economy and maximum performance.

Starr Nylon Netting looks, feels and is *quality . . . Let's you fish easier and longer! That's why it catches and keeps.*

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LESLIE'S SPECIAL GRADES OF SALT FOR THE FISHING INDUSTRY

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And All Other Canned Foods

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The fisherman's long dream now has come true at last.
It's Amilan Fishing Net that has realized it.

TOP QUALITY
Amilan
FISHING NET
MADE IN JAPAN

Amilan
FISHING NET

Because:

1. It brings you larger catches than conventional types of net, particularly in the case of an Amilan gill net.
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3. It is lighter than any other kinds of net. It means less labor force and less fuel consumption.
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5. No drying or preservative is required. Expenses and labor for drying and treatment are saved. Spare nets are almost unnecessary.
6. Continual fishing operation is possible with no fear of decay.

The world's highest workmanship plus these unique merits is the world famous "Amilan" Fishing Net. It always carries the label shown above. "Amilan" is the trade mark of our nylon. Toyo Rayon Co., Ltd., Du Pont's exclusive licensee in Japan on nylon production.

Pamphlet "Amilan Fishing Net" is available, and dealers will be introduced upon request

The Leading Producers of Nylon in Japan

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Established 1926 **Cable Address: "TOYORAYON OSAKA"**

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PRODUCT RPM DELO OIL

APPLICATION M. V. STANFORD
San Pedro, California

Main bearing wear only .011″ in 11 years

Main bearings of M. V. Stanford's diesel wore nly .001" per year during 11 years' operation usng RPM DELO Oil. "With this record," says ownerkipper Matt Karmelich, "you can see why we're oyal to RPM DELO Oil. We started with it in 1944 when the boat was new, and we've never changed! There's been no corrosion of bearings or other engine parts, no clogged or sticking rings." The 86-ft. purse seiner fishes locally out of West Coast ports, also takes longer trips to fishing waters off Mexico and Peru.

250-hp Enterprise diesel of M. V. Stanford is kept spotless by hief engineer Kruno Gamulin (above), shown starting engine's priming pumps. RPM DELO Oil is also used in 671 GMC diesel auxiliary which powers reefer units. Reefer capacity is 100 tons of tuna or 140 tons of sardines.

Why RPM DELO Oils reduce wear—prolong engine life

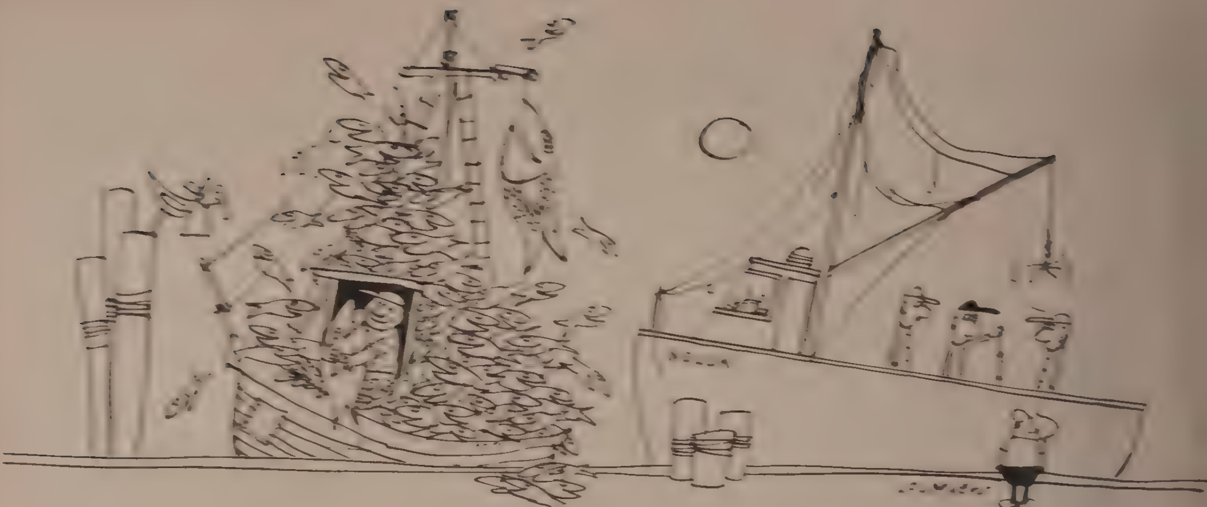
- Metal-adhesion qualities keep oil on engine parts, running or idle
- Anti-oxidant resists formation of lacquer
- Detergent keeps parts clean
- Special compounds prevent corrosion of bearing metal
- Inhibitor resists foaming

For More Information contact your Standard Engineer or Representative, or write 225 Bush Street, San Francisco 20, California.

LUBRICATING OILS RPM DELO

TRADEMARK "RPM DELO" AND CHEVRON DESIGN REG. U.S. PAT. OFF.

STANDARD OIL COMPANY OF CALIFORNIA



Guess Who Uses Roebling Fishing Rope...

Special Galvanized Fishing Rope, to be precise. We agree immediately that the sad showing made by the non-user of Roebling rope is somewhat exaggerated.

No exaggeration, though, to say that with Roebling rope aboard you'll have a lot less to worry about in the heavy-hauling department. It's a rope that is built to take the weight—and take it for a long time. And while it works long and hard, it fights corrosion with a vengeance. That goes for shrouding rope, trawling rope and purse seine rope. Call your distributor or write to Wire Rope Division, John A. Roebling's Sons Corporation, Trenton 2, New Jersey.

Buy from
the guy
that eats
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a man's in good company with

NETS

Tough, durable, precision-made of improved netting materials — a real commercial fisherman's choice.

Ederer Royal Chinook Double Knot Salmon Gill Netting (Nylon or Linen) Bonded Nylon — Cotton Seine Netting — Dynel "miracle fiber" netting — the famous Ederer "Sta-Lok" Nylon Gill Netting — Seine Twine of Cotton, Dynel, Filament Nylon, Spun Nylon.

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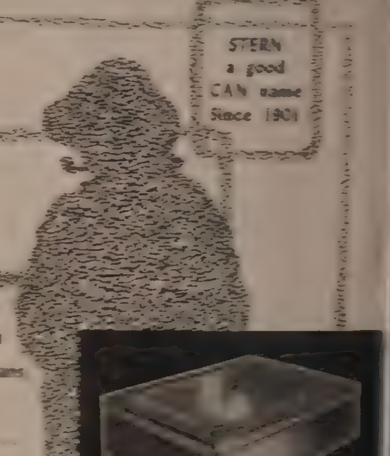
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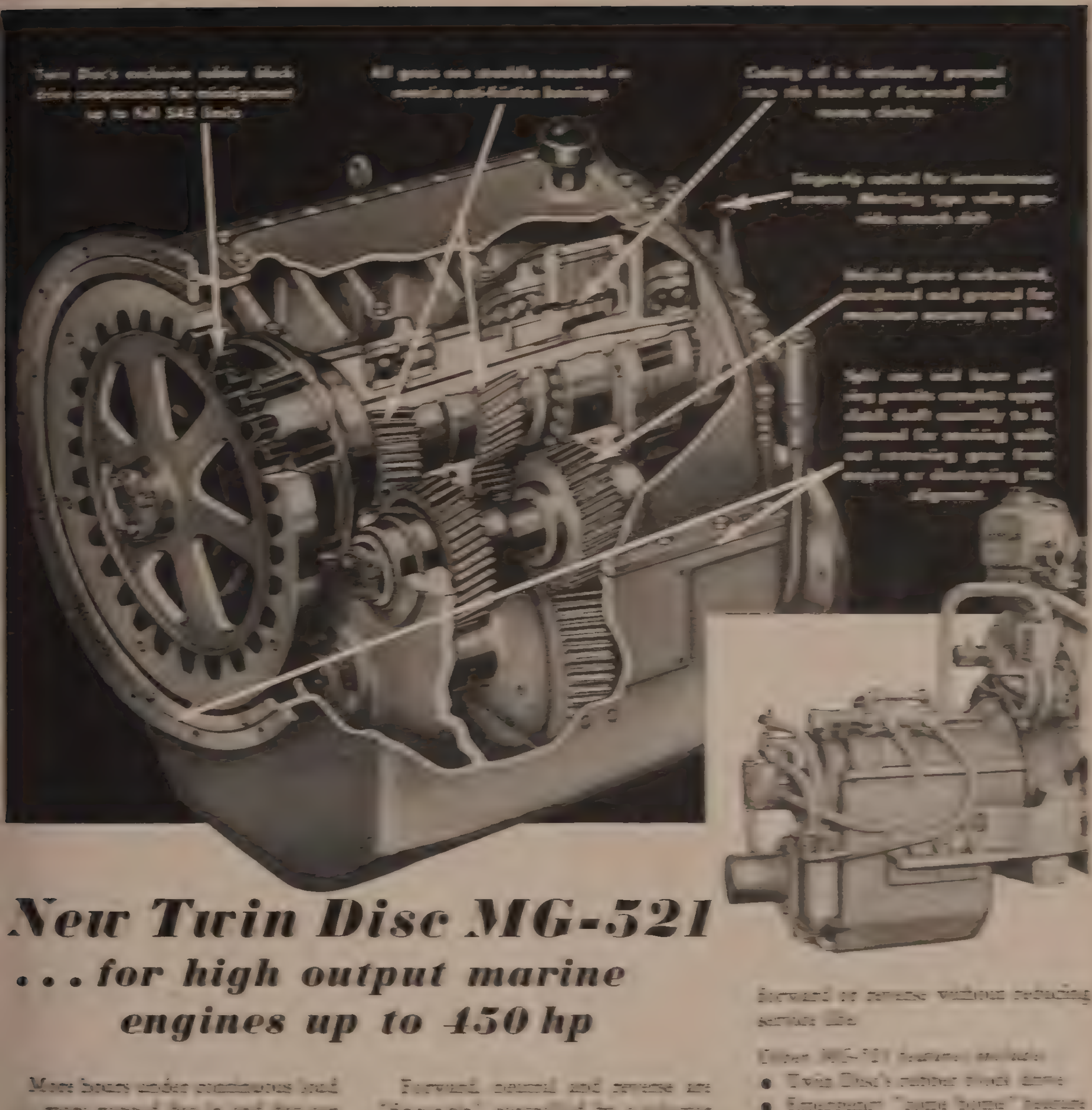
71 LOCUST STREET • BOSTON 25, MASS


Twin Disc's exclusive rubber block drive compensates for misalignment up to full SAE limits
All gears are straddle mounted on genuine anti-friction bearings
Cooling oil is continually pumped into the heart of forward and reverse clutches
Finger-tip control for instantaneous response. Metering type valve provides smooth shift
Helical gears machined, hardened and ground for maximum accuracy and life
Split case and bore pilot ring permits complete upper clutch shaft assembly to be removed for servicing without removing gear from engine or disturbing the alignment.

New Twin Disc MG-521

. . . for high output marine engines up to 450 hp

More hours under continuous load . . . more rugged day-in and day-out operation . . . longer periods between overhauls . . . these are the requirements for today's higher speed, higher horsepower marine engines. And here's the new Twin Disc MG-521 Marine Gear to *match these requirements in every respect* . . . to give boat owners more hours of trouble-free operation . . . and greater-than-ever dollar value on their marine gear investment.

The new MG-521 is rated for 450 continuous hp operation at governed speeds ranging from 1625 to 1850 rpm and is available with 2:1, 3:1, and 4:1 reduction ratios . . . to meet an extremely wide range of engine makes and models.

Forward, neutral and reverse are "finger-tip" controlled by a selector valve, which hydraulically actuates the oil-cooled, multiple-plate forward and reverse clutches. Instantaneous clutch release assures faster, smoother response when shifting from forward to reverse.

A flood of oil is continuously pumped through the clutches, carrying away heat, assuring smooth clutch engagement and substantially reducing clutch plate wear.

Five hardened and ground helical gears, straddle mounted on anti-friction bearings on short rigid shafts—plus unusually heavy-duty construction throughout—assure extremely long life. Full horsepower may be transmitted continuously in either forward or reverse without reducing service life.

Other MG-521 features include:

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- Emergency "come home" feature
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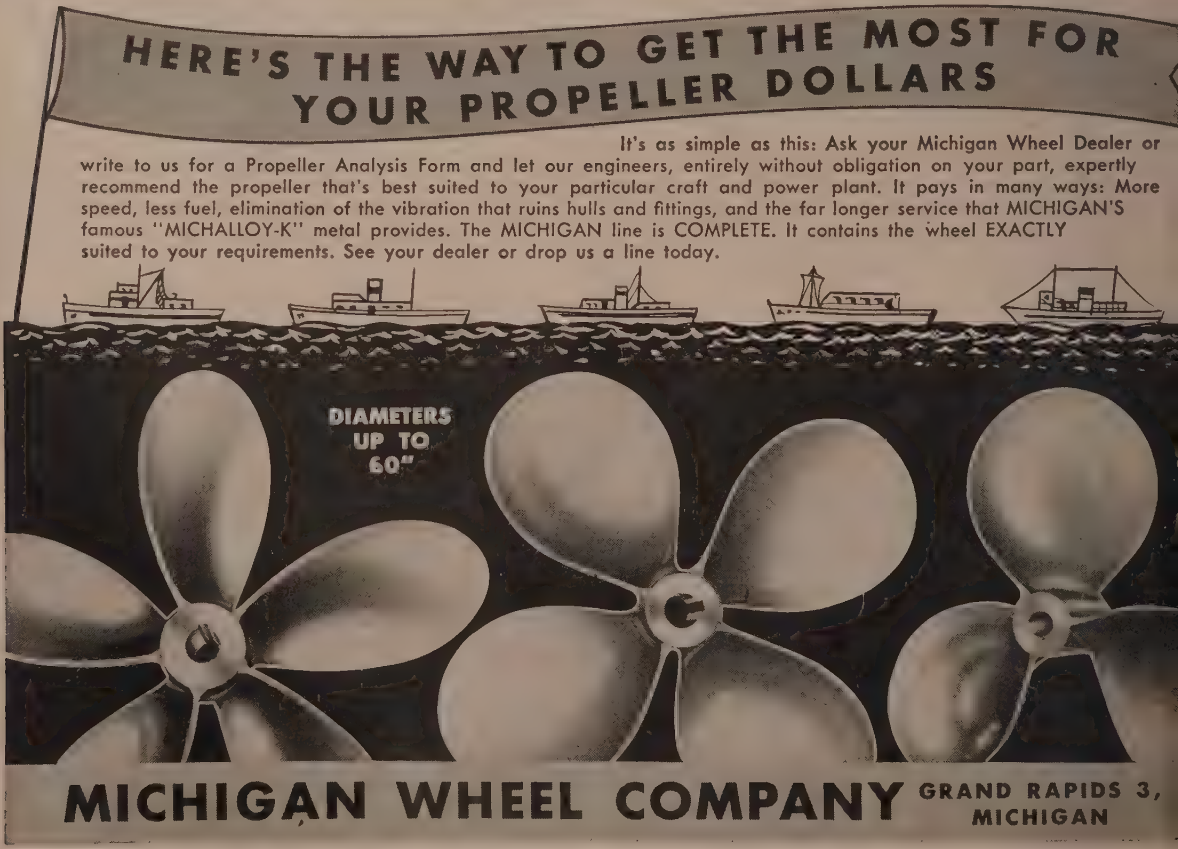

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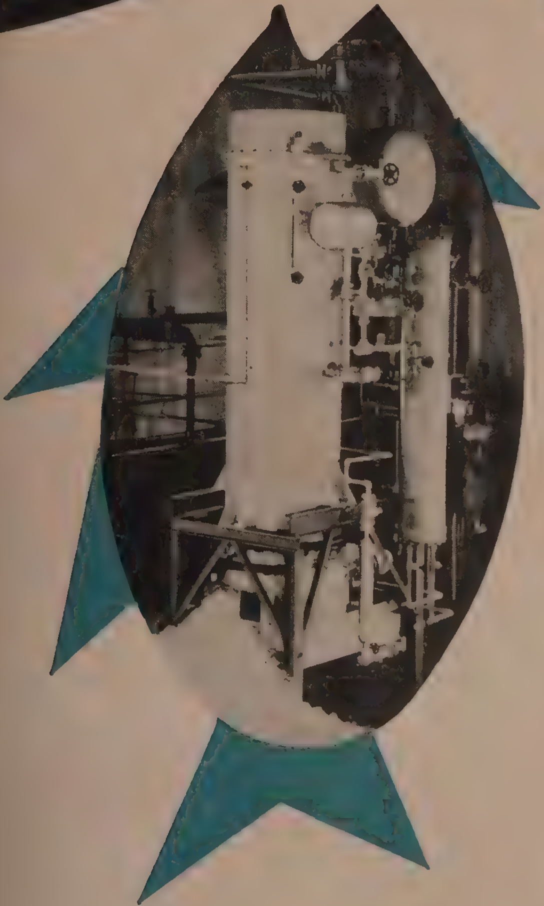

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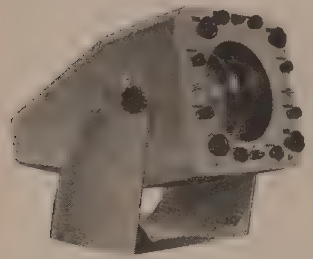

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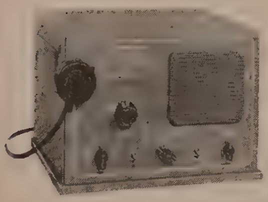

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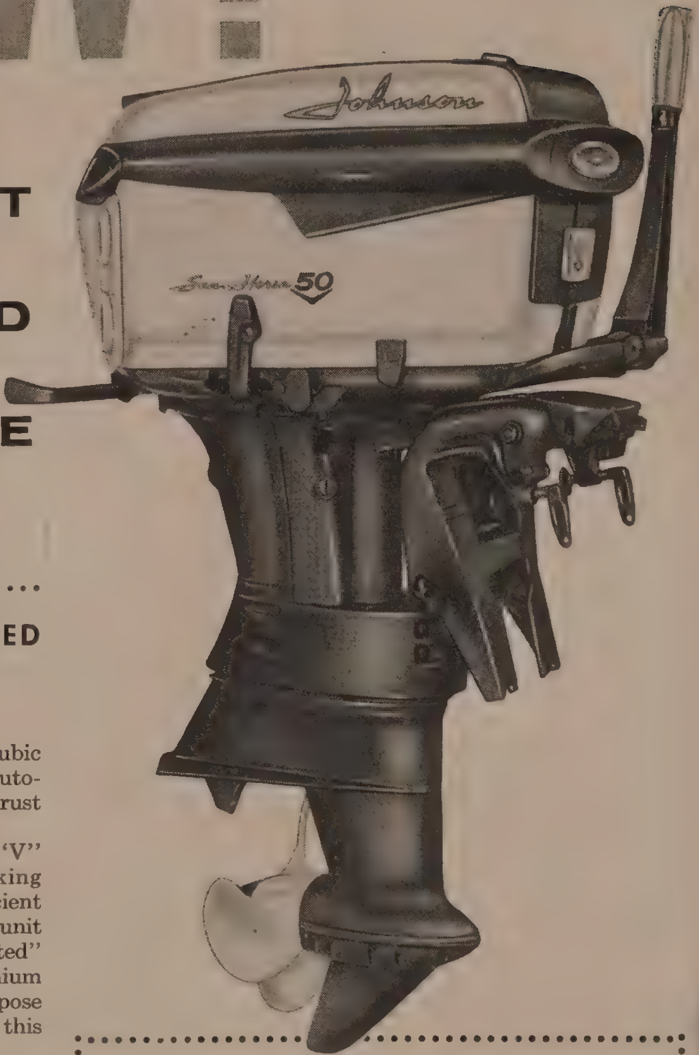

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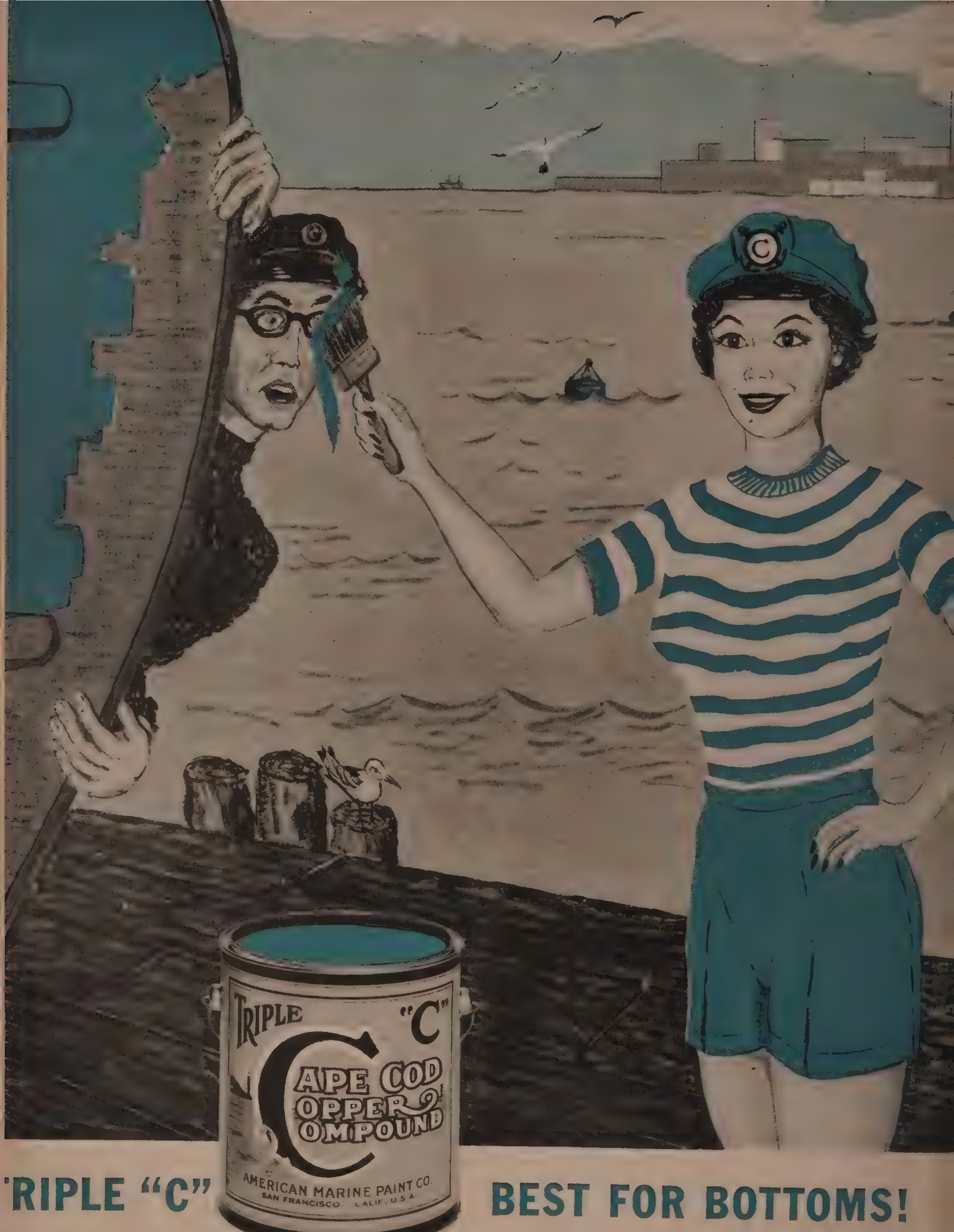
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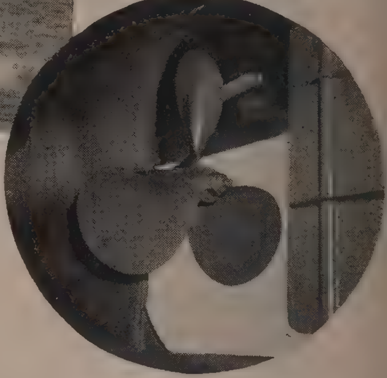

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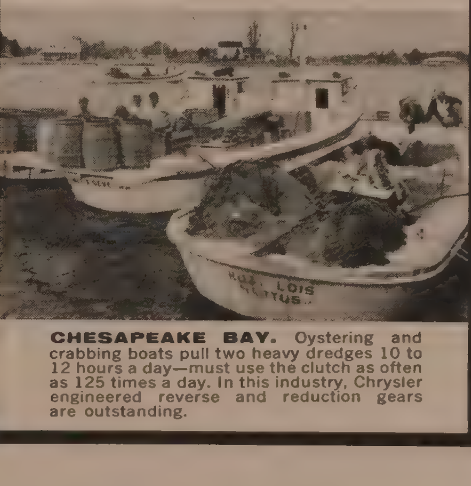
VANCOUVER, B.C. fisheries report more Chrysler Marine Engines in use than all other makes combined. Some have been working for as long as a dozen years without a major maintenance problem.

MAINE lobstermen put in long hours on a tight schedule—4:30 A.M. to 4:00 P.M. during the season. Dependable marine power, therefore, is a must. Chrysler is first choice.


CHESAPEAKE BAY. Oystering and crabbing boats pull two heavy dredges 10 to 12 hours a day—must use the clutch as often as 125 times a day. In this industry, Chrysler engineered reverse and reduction gears are outstanding.

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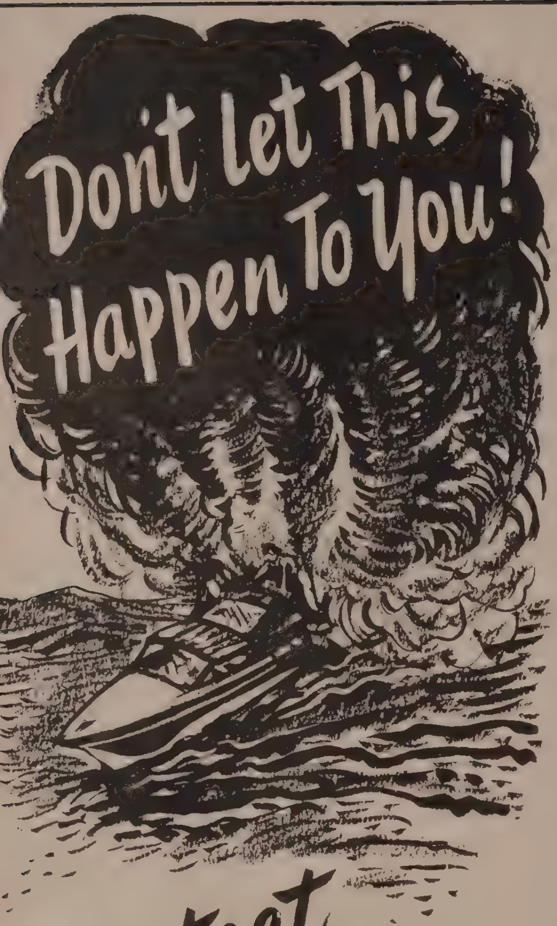
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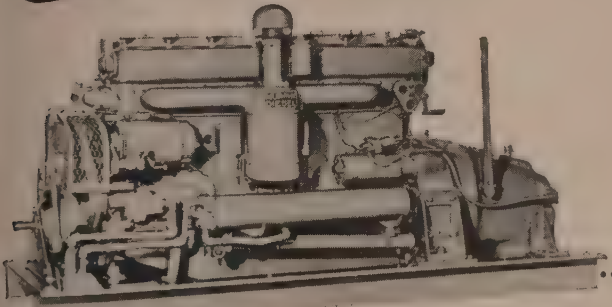

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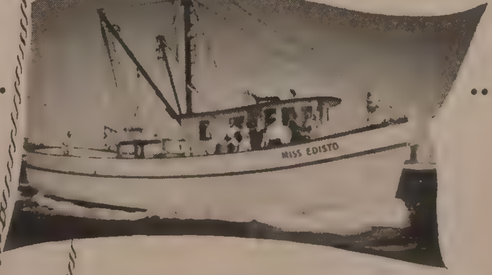
OFF NOVA SCOTIA, the 60.5-ton dragger "Rush" owned by Tanner Fisheries Ltd. of Lunenberg, N.S., uses a 210 HP Murphy Diesel with front power take-off.

OUT OF SEATTLE, Nakat Packing Company's 57-ft. salmon purse seiner "Dream Maid" uses a 210 HP Murphy Diesel engine for economical power.

LAGUNA MADRE

IN THE GULF. The "Laguna Madre" is one of a fleet of ten trawlers owned by Independent Fish Company of Brownsville, Texas, which use Murphy Diesel engines for dependable, trouble-free sea-going power.



EAST COAST SHRIMPING. The Hatteras trawler "Miss Edisto" is powered by a 128 HP Murphy Diesel for profitable shrimping operations in Florida shrimping grounds. Edisto Marine Service, of Edisto Beach, S.C., owns the trawler.

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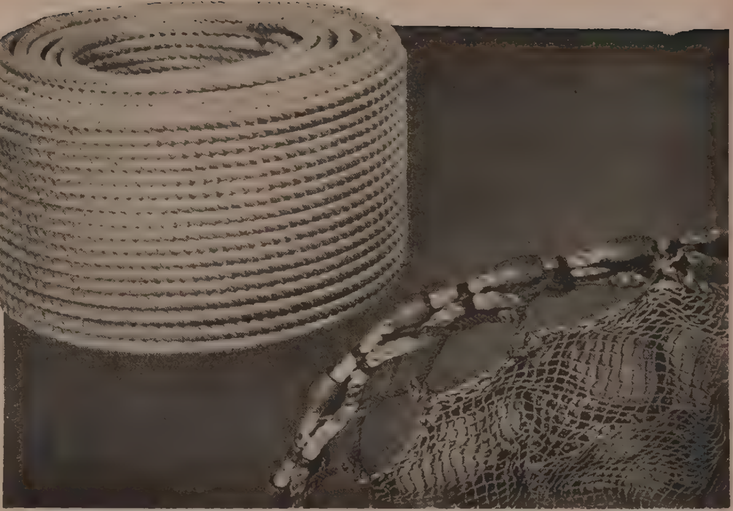

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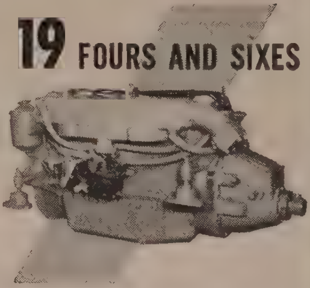
Gray's 109 hp Model 109 (shown) is popular with stockboat builders, and one of ten fast, smooth 6-cylinder engines rated at 109, 116, 118, 120, 136, 150, 165, 175, 185 and 200 hp.

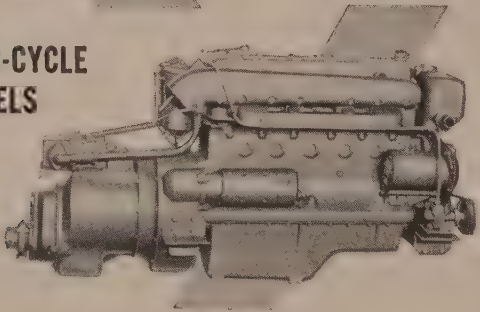
19 FOURS AND SIXES



2 FIREBALL V-8's

Gray's smooth new V-8's—160 hp and 225 hp—have already distinguished themselves in many varied installations for those who want top power in a lightweight, compact yet sturdy package. Many features, including new Warner hydraulic gear, smooth idling, quick acceleration, top-of-engine servicing.

6 FOUR-CYCLE DIESELS



Gray's 130 hp Six-D427 shown, use-proved for years in Government service, is representative of the Gray Diesel line—25, 30, 60, 130, 150 hp, and now the new 190 hp Six-D802. For those who want the benefits of Diesel power, Gray's four-cycle design is an extra advantage, resulting in simpler maintenance and smoother, quieter operation.

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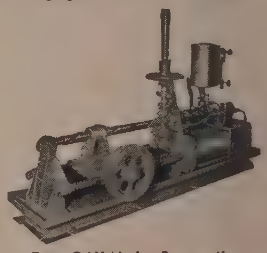

Type GAY Hydro-Pneumatic Steering Gear

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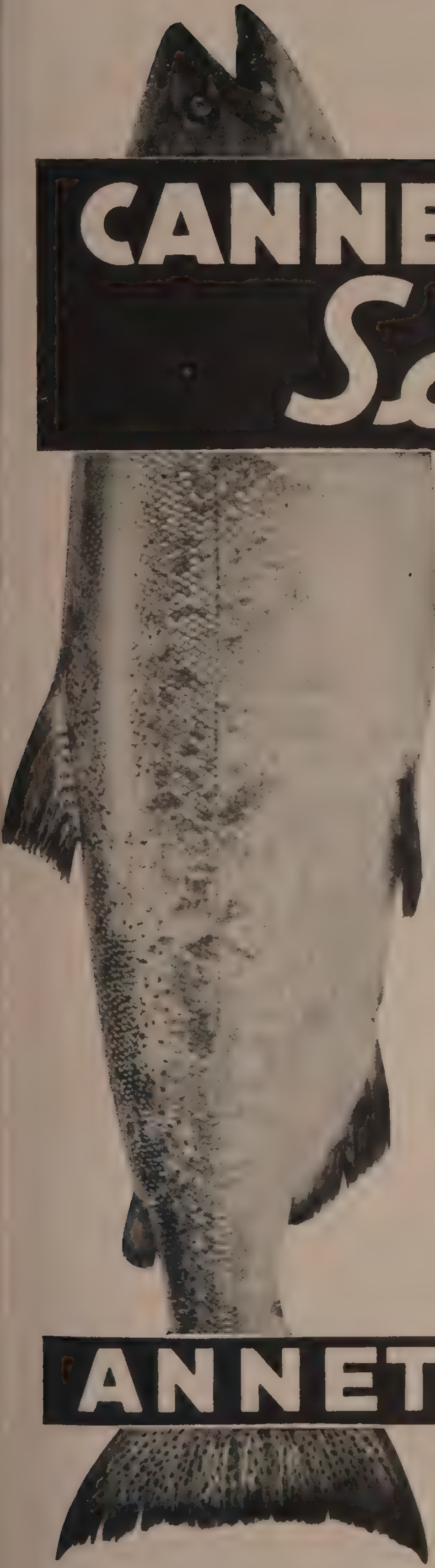

ALASKA CANNED *Salmon*

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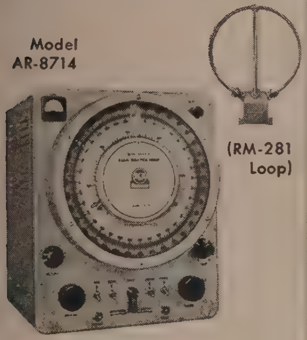

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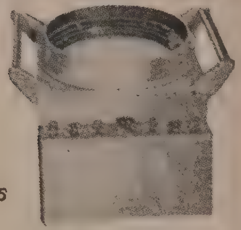

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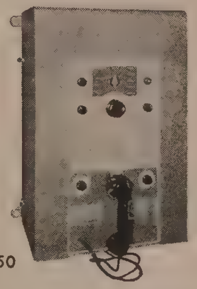

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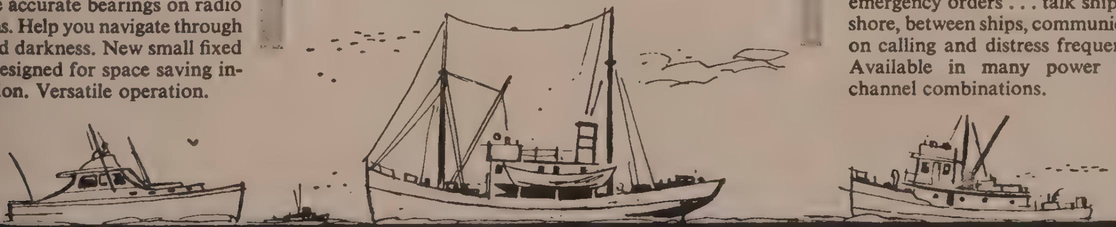

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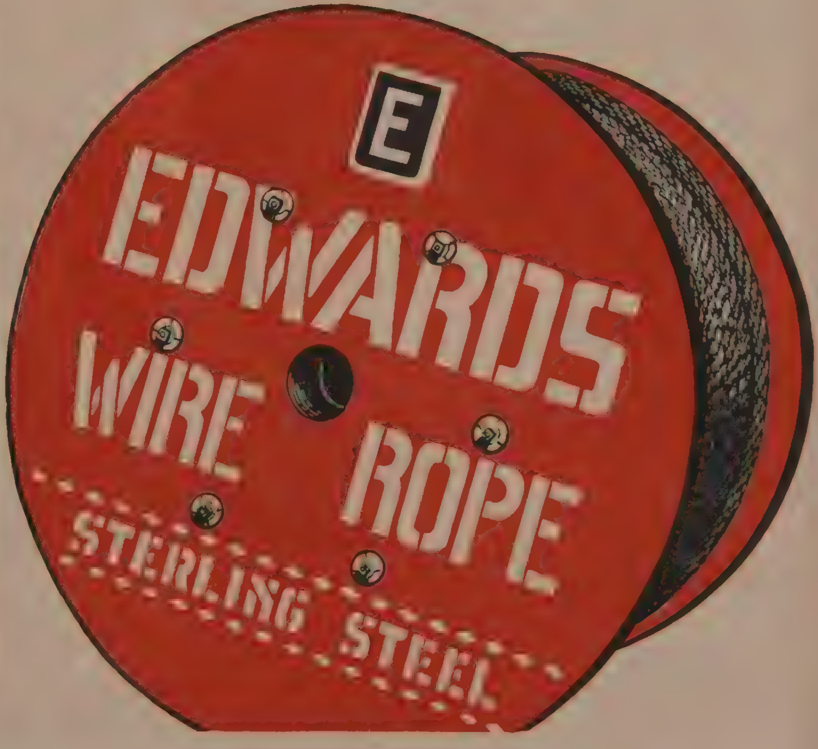
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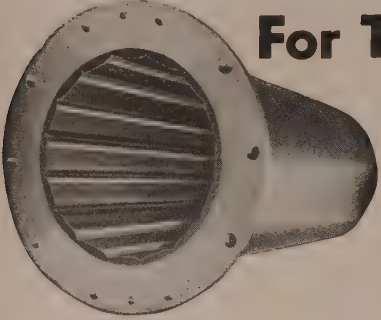

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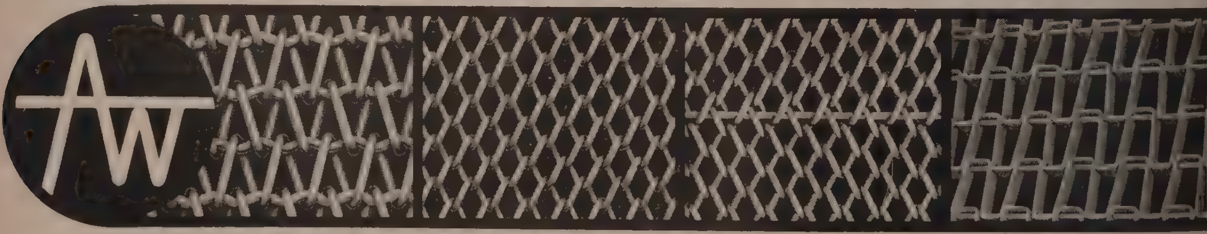

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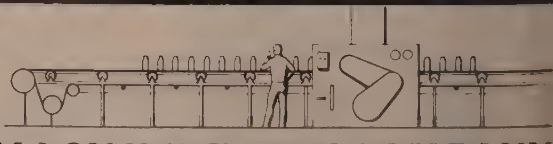

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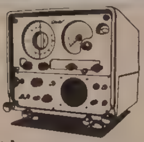

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Model ADF is the only instantaneous **visual** Direction Finder which shows you your bearing and sense automatically. Can be used to take bearings on other boats, land stations and beacons.

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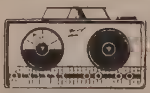

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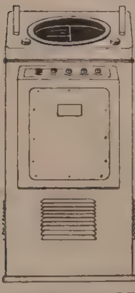

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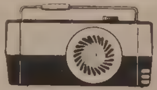

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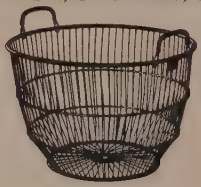

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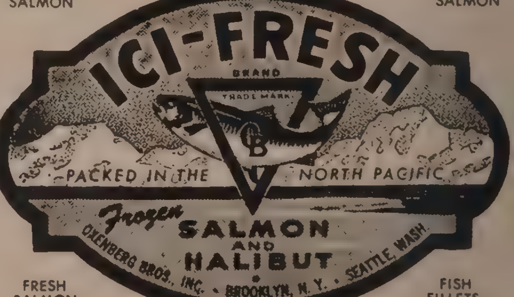
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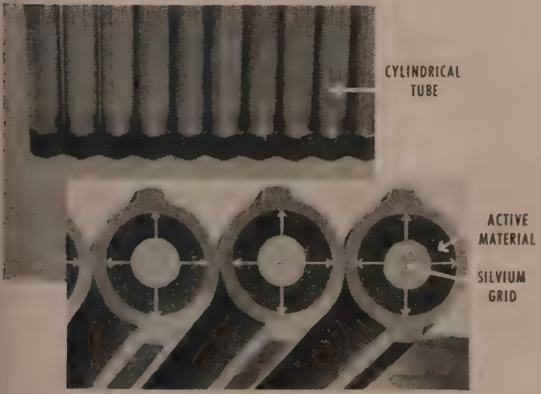
Exclusive tubular construction of the Exide-Ironclad positive plate



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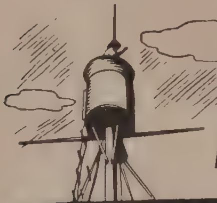

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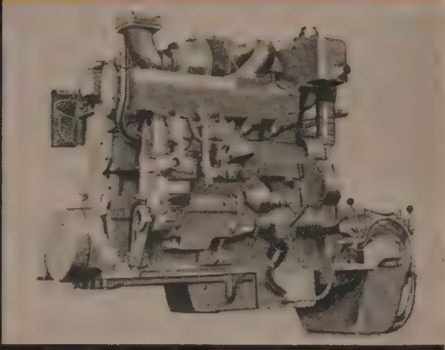

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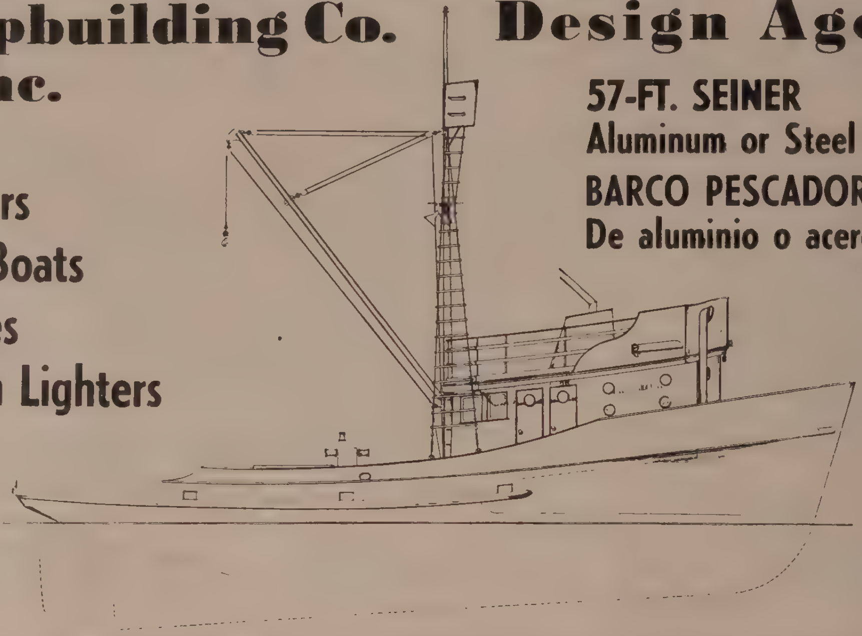

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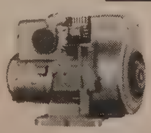

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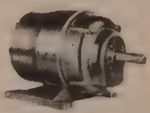

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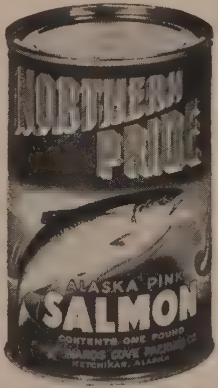
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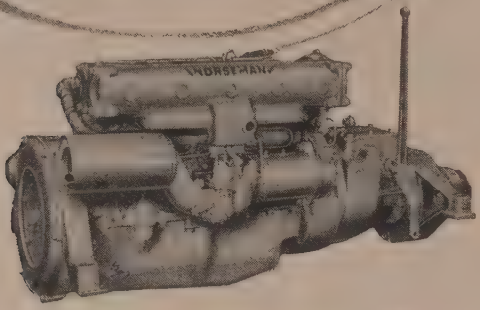

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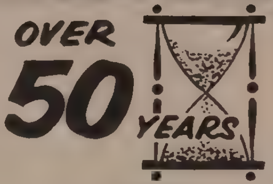

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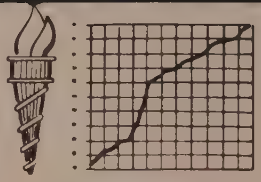
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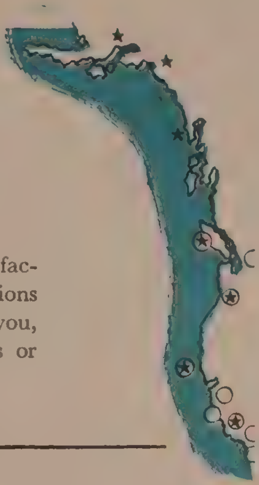

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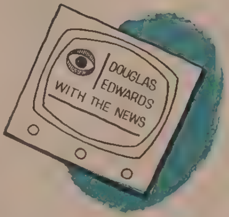
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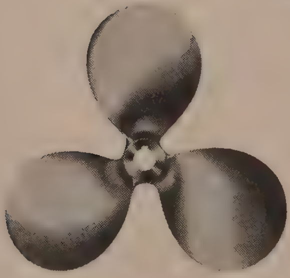

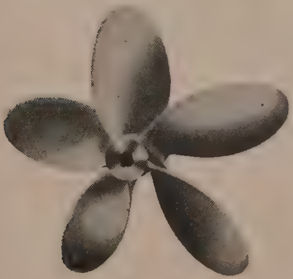

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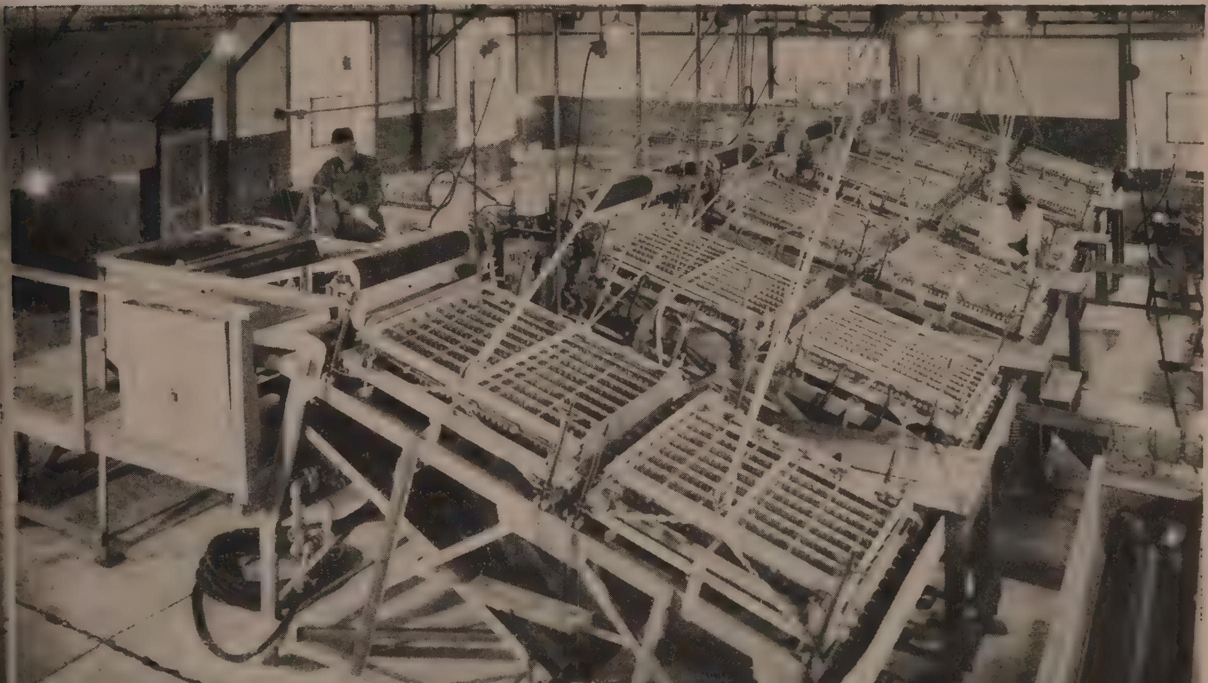

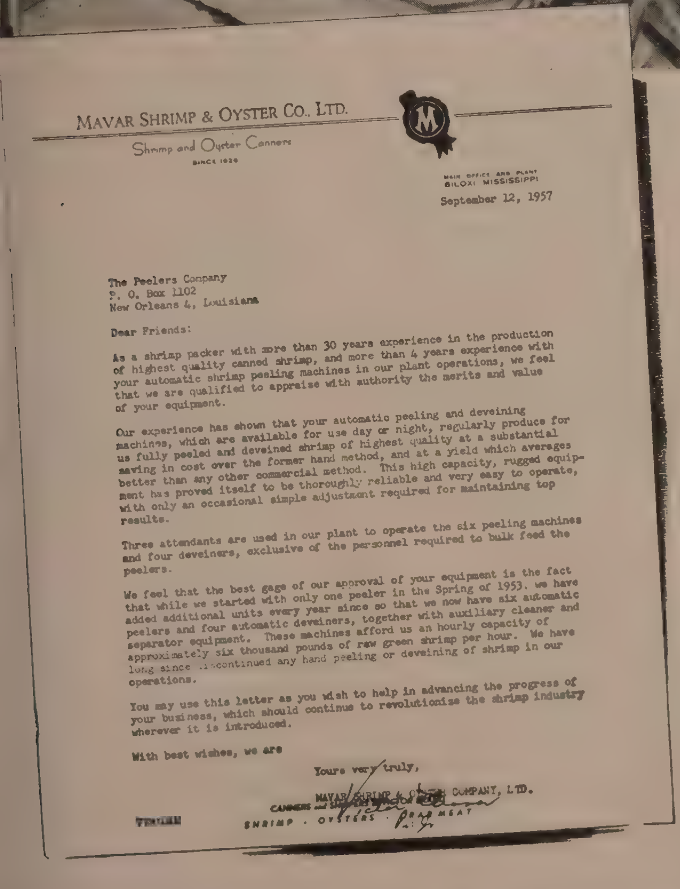

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We feel that the best gage of our approval of your equipment is the fact that while we started with only one peeler in the Spring of 1953. we have added additional units every year since so that we now have six automatic peelers and four automatic deveiners, together with auxiliary cleaner and separator equipment. These machines afford us an hourly capacity of approximately six thousand pounds of raw green shrimp per hour. We have long since discontinued any hand peeling or deveining of shrimp in our operations.

You may use this letter as you wish to help in advancing the progress of your business, which should continue to revolutionize the shrimp industry wherever it is introduced.

With best wishes, we are

Yours very truly,

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DIRECTORY

Pacific Fisheries Organizations

(Data as of Jan. 1, 1958)

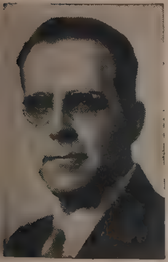
OFFICIAL

Iwao Fujita

International North Pacific Fisheries Commission, 209 Westbrook Bldg., University of British Columbia, Vancouver 8, B. C. — Chairman, Iwao Fujita, Japan; Secretary, George R. Clark.

International Pacific Salmon Fisheries Commission, Dominion Building, New Westminster, B. C. — Chairman, Senator Thomas Reid; Director of Investigations, Loyd A. Royal.

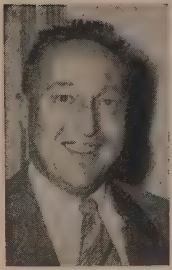
Sen. Thos. Reid


H. A. Dunlop

International Pacific Halibut Commission, Fisheries Hall, No. 2, University of Washington, Seattle 5, Washington — Chairman, Richard Nelson; Director of Investigations, H. A. Dunlop.

Pacific Marine Fisheries Commission, 340 State Office Bldg., 1400 S. W. Fifth Avenue, Portland, Ore. — Chairman, Richard S. Croker; Co-ordinator, Milton C. James.

Milton C. James


M. B. Schaefer

Inter-American Tropical Tuna Commission, Scripps Institute of Oceanography, La Jolla, Calif.—Chairman, Jose L. Cardona-Cooper, Costa Rica; Director of Investigations, Dr. M. B. Schaefer.

Fisheries Research Board of Canada, Ottawa, Canada — Chairman, Dr. John L. Kask; Pacific Advisory Committee, R. E. Walker, Vancouver, Convenor; Dr. H. L. A. Tarr, Director, Technological Station, Vancouver; Dr. A. W. H. Needler, Director, Biological Station, Nanaimo, B. C.

John L. Kask

O. J. McDonald

Fisheries Council of Canada, Room 703, 77 Metcalfe Street, Ottawa 4, Ontario —President, O. J. McDonald, Vancouver, B. C.

State of Washington, Department of Fisheries, General Administration Bldg., Olympia, Wash. — Director, Milo Moore; Assistant Director, Clarence Pautzke.

Milo Moore

State of Oregon, Fish Commission, State Office Bldg., Portland 1, Oregon —Chairman, Harold T. Johnson.

R. S. Croker

State of California, Department of Fish and Game, 926 "J" Street, Sacramento, Calif.—Director, Seth Gordon; Marine Fisheries Branch, Richard S. Croker, Chief.

Territory of Alaska, Department of Fish and Game, 229 Alaska Office Bldg., Juneau, Alaska—Director, C. L. Anderson; Chairman, Alaska Fish and Game Commission, Robert C. Kallenberg.

C. L. Anderson

A. J. Whitmore

Dominion of Canada, Department of Fisheries, Pacific Area, 1110 Georgia Street, West, Vancouver, B. C. — Chief Supervisor of Fisheries, A. J. Whitmore; Ass't. Chief Supervisor of Fisheries, T. Taylor.

Province of British Columbia, Dept. of Recreation and Conservation, Fisheries Branch, Parliament Buildings, Victoria, B. C.—Minister, Hon. Earle C. Westwood.

E. C. Westwood

DIRECTORY

Pacific Fisheries Organizations

(Data as of Jan. 1, 1958)

Bureau of Commercial Fisheries, U. S. Fish and Wildlife Service, Washington 25, D. C. — Director, Donald L. McKernan; Ass't Director, Andrew W. Anderson.

D. L. McKernan

S. J. Hutchinson

Pacific Regional Office, Seattle, Wash. — Acting Director, Samuel J. Hutchinson.

Alaska Regional Office, P. O. Box 2021, Juneau, Alaska—Acting Director, John T. Gharrett.

Pacific Salmon Investigations, 2725 Montlake Blvd., Seattle 2, Washington —Chief, Clinton E. Atkinson.

South Pacific Fishery Investigations, P. O. Box 271, La Jolla, Calif.—Chief, John C. Marr.

Fishery Products Laboratory, Ketchikan, Alaska—Fishery Products Technologist in charge, Eystein Einset.

Market Development Branch, Ketchikan, Alaska.

Market News Branch, 208 Post Office Bldg., San Pedro, Calif.—Supervisory Market News Reporter, Victor J. Samson.

Market News Branch, 342 11th St., Astoria, Oregon — Fishery Marketing Specialist, Edward Poysky.

Market Development Branch, 764 Tuna Street, Terminal Island, Calif. —Fishery Market Specialist, S. Ross Hatton.

Fishery Technological Laboratory, 2725 Montlake Blvd., Seattle 2, Wash. —Chief, Maurice E. Stansby.

Market Development Branch, 2725 Montlake Blvd., Seattle 2, Wash. — Fishery Marketing Specialist, Fred W. Hipkins.

Exploratory Fishing and Gear Research Branch, 2725 Montlake Blvd., Seattle 2, Wash.—North Pacific Fishery Explorations Chief, Donald E. Powell.

Market News Branch, Pier 42, South, Seattle 4, Wash. — Chas. M. Reardon, Supervisory Market News Reporter.

Management Pribilof Island and Fur Seal Service, 706 Federal Office Bldg., Seattle 4, Washington—General Manager, Clarence L. Olson.

Ocean Research Laboratory, Jordan Hall, Stanford University, Menlo Park, Calif.—Chief, O. E. Sette.

Pacific Oceanic Fishery Investigations, P. O. Box 3830, Honolulu, T. H. —Director, Garth I. Murphy.

GENERAL

R. Van Cleve

School of Fisheries, University of Washington, 204 Fisheries Center, Seattle 5, Wash. — Director, Dr. Richard Van Cleve.

Fisheries Research Institute, Fisheries Hall No. 2, University of Washington, Seattle 5, Wash. — Director, Dr. William F. Thompson.

Wm. F. Thompson

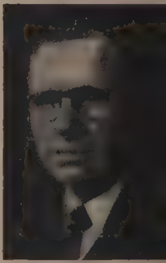
Northwest Fisheries Association, Rm. 4, Ferry Dock, Seattle, Wash.— President, W. C. Eardley, Jr.; Secretary, Edward Johnson.

American Seafood Distributors Association, 406 Southern Bldg., Washington 5, D. C.—Pres., W. R. Meier Jr.; Exec. Secy., Elizabeth Guhring.

C. E. Jackson

National Fisheries Institute 1614 Twentieth St., N. W., Washington 9, D. C.— President, Aldo Casaretto; General Manager Charles E. Jackson.

Pacific Fisheries Conference, 1308 Northern Life Tower, Seattle, Wash. — Acting Chairman, Edward W. Allen; Secretary, Montgomery Phister.



Edw. W. Allen

National Canners Association 1133 20th St. N W., Washington 6, D. C.— President, A. Edward Brown; Executive Secretary, Carlos Campbell; Director, Fishery Products Division George E. Steele Jr.

Geo. E. Steele, Jr.

National Canners Association, Northwest Branch, 1600 Jackson St., Seattle 44, Wash. — Manager and Chief Chemist, Dr. G. Ivor Jones.

G. Ivor Jones

Alaska Native Brotherhood, Gran Camp, Sitka, Alaska — Grand President, Mark Jacobs, Sitka, Alaska Grand Secretary, C. E. Peck, Juneau

DIRECTORY

Pacific Fisheries Organizations

(Data as of Jan. 1, 1958)

Fisheries Association of British Columbia, Room 510, Shelly Bldg., 119 West Pender, Vancouver, B. C.—Chairman, J. M. Buchanan; Secretary, John MacDonald; Executive Assistant to the Chairman, R. F. Gadsby.

J. M. Buchanan

J. L. Turnacliff

Northern California Sea Food Institute, 2677 Larkin St., San Francisco, Calif. — President, J. Lloyd Turnacliff; Secretary - Manager, John Gilchrist.

Pacific Fisheries Technologists, 898 Richards St., Vancouver 2, B. C.—President, G. F. Boothby; Secretary - Treasurer, P. J. Schmidt.

G. F. Boothby

Pacific Fishery Biologists, Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C. — President, Wendell Smith, Washington Dept. of Fisheries, Seattle, Wash.; Secretary-Treasurer, W. R. (Rod) Hourston, Dept. of Fisheries of Canada, Vancouver, B. C.

OPERATORS

Alaska Salmon Industry, Inc., Colman Building, Seattle 4, Wash.—President, William Calvert; Managing Director, W. C. Arnold.

Association of Pacific Fisheries, 303 East Northlake Ave., Seattle, Wash. — President, A. W. Brindle; Executive Secretary, Herald A. O'Neill.

A. W. Brindle

Joe Mardesich

California Fish Canners Association, Ferry Bldg., Terminal Island, Calif.—President, Joeseph Mardesich; Executive Director, Charles R. Carry.

Puget Sound Salmon Canners, Inc., Colman Building, Seattle, Wash. — President, Mel Halgren; Executive Secretary, Herald A. O'Neill.

Herald O'Neill

Frank Tsuchiya

Southern California Fisheries Association, 1248 E. 6th St., Los Angeles 21, Calif. — President, Frank Tsuchiya; Executive Secretary, Bart A. Ghio.

Northwest Salmon Canners Association, Colman Building, Seattle, Wash. —President, Joseph R. Fribrock; Vice-President, Eric Bulmer; Secretary, William Hingston.

Cordova Aquatic Marketing Association, Inc., Box 359, Cordova, Alaska—President, Henry Wiese.

Pacific Coast Clam Packers Association, 508 Colman Building, Seattle, Washington.

W. O. Riley

Fishermen's Marketing Association, Eureka, Calif.—President, Fred Thebus; Vice - President, Arne Grotting; Secretary, W. O. Riley.

Pacific Coast Oyster Growers Association, Rm. 4, Ferry Dock, Seattle 4, Wash. — President, Lee J. Wiegardt; Managing Director, Malcom B. Edwards; Secretary-Treasurer, Charles R. Pollock.

Chas. R. Pollock

Olympia Oyster Growers Association, P. O. Box 567, Shelton, Wash. —President, Herbert G. Nelson; Vice-President, H. R. Ellison; Secretary-Treasurer, Richard R. Lewis.

A. S. Chiappe

Lower California Fisheries Association, 935 West Harbor Drive, San Diego 1, Calif. — President, Anthony S. Chiappe; Business Manager, J. J. Camillo.

DIRECTORY

Pacific Fisheries Organizations

(Data as of Jan. 1, 1958)

Thos. E. Noice

Monterey Fish Processors Association, P. O. Drawer 72, Monterey, California—President, Thomas E. Noice; Secretary-Treasurer, George Clemens.

J. H. Cellars

Columbia River Salmon & Tuna Packers Association, P. O. Box 60, Astoria, Oregon — Executive Secretary, James H. Cellars.

Edw. J. McLeary

Washington State Trout Growers Association, 5122 So. Oakes St., Tacoma, Wash. — President, Edward J. McLeary; Vice - President, Joe Beck; Secretary - Treasurer, Thos. B. Allison.

J. R. Jacobson

Pacific Herring Packers Association, 1844 Westlake N., Seattle, Wash. — President, J. R. Jacobson.

Purse Seine Vessel Owners Marketing Association, Fishermen's Terminal, Seattle 99, Wash. — President, Geo. Cuculich; Vice-President, Anton Vitalich; Secretary, Nick Mladinich.

Shrimp Association of the Americas, Pan American Bldg., 1055 E. Elizabeth St., Brownsville, Texas—Executive Secretary, J. E. Barr.

Drum Seiners Marketing Association, 105 Hawthorne Road, Bellinghah, Wash.—President, Robert Glenovich; Secretary, Dick J. Kink.

Salmon Trollers Marketing Association, Box 137, Fort Bragg, Calif. — President, N. A. Miles; Secretary, Charles Wirtanen.

Fishermen's Marketing Association of Washington, Pier 59, Seattle, Wash. —President, Minor Lervold.

West Coast Shrimp Producers Association, Pier 46, Seattle, Wash.—Ivar Wendt, chairman; Steve Sarich, secretary.

VESSEL OWNERS

Harold F. Cary

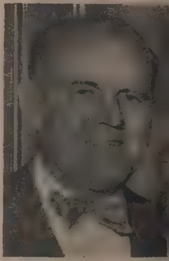
American Tunaboat Association, 1 Tuna Lane, San Diego 1, California — President, Joseph J. Madruga; General Manager, Harold F. Cary; Director of Research, Dr. W. M. Chapman.

G. Johannson

California Commercial Fishermen's Association, Inc., 745 South Seaside, Terminal Island, Calif.—President, Gus Johannson.

B. G. Johnston

Fishermen's Cooperative Association, Pier 59, Seattle, Wash. — President, Reidar Hammer; Vice President, Harry McCool; Secretary-Treasurer, B. G. Johnston.



T. H. Sorensen

Fishermen's Co-operative Federation, Box 340, Prince Rupert, B. C., and 2195 Commissioner St., Vancouver 6, B. C. — General Manager, T. H. Sorensen; Secretary, K. F. Harding.

H. E. Lokken

Fishing Vessel Owners Association, Pier 59, Seattle, Wash.—President, Jacob Knutsen; Manager, Harold E. Lokken.

H. A. Christenson

Fishing Vessel Owners' Association of British Columbia, 193 E. Hastings St., Vancouver, B. C. — President, Charles Clarke; Secretary-Manager, Harold A. Christenson.

Alaska Herring Skippers Associ tion, 1035 Securities Bldg., Seattl Wash.—President, Bernt Gjerde; Bus ness Manager, G. Bradley Dalton.

DIRECTORY

Pacific Fisheries Organizations

(Data as of Jan. 1, 1958)

Mason Case

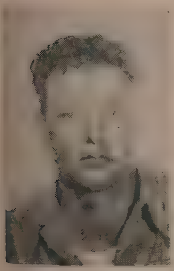
Fishermen's Cooperative Association, Fishermen's Wharf, Berth 73, San Pedro, Calif. — President, John Zankich; Manager, Mason Case.

Juneau Fishing Vessel Owners Association, Box 668, Juneau, Alaska —President, John Lowell; Secretary-Treasurer, Edmund Krause.

Ketchikan Fishing Vessel Owners Association, P. O. Box 688, Ketchikan, Alaska — President, Eric Todal; Manager, Harold T. Henricksen.

Eric Todal

LaConner Fishermen's Cooperative Association, LaConner, Wash.—Secretary-Manager, William Alvord.



L. Goulart

Monterey Fishermen's Association, Monterey, Calif.—President, Leonard Goulart; Secretary - Treasurer, Ernest Martins.

Monterey Purse Seiners Association, 9 Municipal Wharf, Monterey, Calif. —Secretary, Horace Balbo.

Puget Sound Gillnetters Association, 3417 Broadway Ave., Everett, Wash. — Executive Secretary, Kay Cranmore.

Myrth Sarvela

Northern Fishing Vessel Owners Association, Sitka, Alaska — President, H. L. Bowers; Vice-President, M. R. Karock; Secretary, Myrth Sarvela.

Off-Shore Fishing Vessel Owners Association, P. O. Box 838, 51 Ninth St., Astoria, Oregon — President, Arthur J. Anderson; Treasurer, Sverre Koppen.

A. J. Anderson

V. A. Counter

Petersburg Fishing Vessel Owners Co-Operative, Petersburg, Alaska — President, Erling Strand; Secretary, Vernon A. Counter.

Purse Seine Vessel Owners Association, 5301 North Ruby St., Tacoma, Wash.—President, George Cuculich; Secretary, Nick Mladinich.

George Cuculich

Prince Rupert Fishing Vessel Owners' Association, c/o Prince Rupert Fishermen's Settlement Service, Cow Bay, Prince Rupert, B. C.—President, Barney Roald; Secretary, M. H. Waters.

K. F. Harding

Prince Rupert Fishermen's Cooperative Association, P. O. Box 340, Prince Rupert, B. C. — President, Carl Giske; Secretary and Manager, K. F. Harding.

San Diego Commercial Fishing Boat Owners, Inc., 4904 N. Harbor Drive, San Diego, Calif. — President, Nic Cordileone; Secretary-Treasurer, Wm. H. Walters.

Nic Cordileone

Victor Nigro

Southern California Fishermen's Association, 418 Harbor Lane, San Diego, Calif.—President, Victor Nigro; Vice-President, Jimmie Nigro; Secretary - Treasurer, Louis V. Nigro.

San Francisco Crab Boat Owners Association, 2907 Jones St., San Francisco, Calif.—President, Gaetano Dingelo; Secretary-Treasurer, Emil Barbaro.

Washington Reef Net Owners Association, Lummi Island, Washington — President, Bruce Lintz; Executive Secretary, Glenn H. Schuler.

G. H. Schuler

DIRECTORY

Pacific Fisheries Organizations

(Data as of Jan. 1, 1958)

San Francisco Sardine Association, Pier 92, San Francisco 11, Calif. — President, John Costanza; Secretary-Treasurer, George J. Christo.

UNIONS

Geo. Johansen

Alaska Fishermen's Union, 84 Union St., Seattle, Wash. — Secretary-Treasurer, George Johansen.

Alaska Fishermen's Union, Ketchikan Branch, LIU 1821, AFL-CIO, P. O. Box 1685, Ketchikan, Alaska — Business Agent, Oscar Ericksen.

Oscar Ericksen

Alaska Fishermen's Union, Bellingham Branch, Luther Building, P. O. Box 186, Bellingham, Wash.—Agent, Jack Wood.

Cordova District Fisheries Union (Independent), Box 939, Cordova, Alaska—Executive Secretary, Richard Janson, Jr.

Deep Sea Fishermen's Federal Union of B. C., Prince Rupert, B. C. —President, Hilmar Mork; Secretary, W. H. Brett.

Deep Sea Fishermen's Union of the Pacific, 5215 Ballard Ave., Seattle, Wash.—Secretary-Treasurer, Clarence R. Nordahl; Seattle Agt., S. Lund.

John Hawk

Seafarers' International Union of North America, AFL-CIO (Headquarters), 450 Harrison St., San Francisco, Calif. — Secy.-Treas., John Hawk.

Alaska Marine District Union of Fishermen, Cannery Workers and Allied Trades, AFL-CIO, 832-A, Water Street, Ketchikan, Alaska—Executive Secretary-Treasurer, S. M. Ogden.

Bering Sea Fishermen's Union, SIU-AFL, Dellingham, Bristol Bay, Alaska — Secretary-Treasurer, Jim Downey; Asst. Secy.-Treas., Fred Berglof.

Seine and Line Fishermen's Union, Monterey County, AFL-CIO, 233 Alvarado St., Monterey, Calif.—Business Agent, John Crivello.

Seine & Line Fishermen's Union of San Pedro, SIU, AFL-CIO, 261 West 7th St., San Pedro, Calif. — Business Agent-Secretary, John Calise.

United Fishermen of Kodiak, Alaska, AFL-CIO, SIU., P. O. Box 1035, Kodiak, Alaska — President, Harry Lindgren; Secy.-Treas., Nick Frost.

Yakutat Marine District Union, SIU-AFL-CIO, Yakutat, Alaska—Secretary, John O. Williams.

Thomas Ivey

Fish Cannery Workers Union of the Pacific, 450 Seaside Ave., Terminal Island, California—President, Thomas Ivey.

Cannery Workers and Fishermen's Union of San Diego, 640 State street., San Diego 1, Calif. — President, George Ledesma; Secretary-Treasurer, Lester Balinger.

Fish Cannery Workers' Union of the Pacific, Monterey County, 320 Hoffman Ave., Monterey, Calif.—Business Agent, Lester Caveny; Secretary-Treasurer, Roy Humbracht.

Geo. Issel

Fish Cannery Workers' and Fisherman's Union of the Pacific, San Francisco and Moss Landing Bay Areas, 467 12th Street, Richmond, Calif. — Secretary-Treasurer, George Issel, San Francisco Branch, 16th and Capp Sts.

Fish Plant Worker's Union of Newport, Oregon — Secretary-Business Agent, Lola Attridge.

Crab and Codfish Workers' Union, 2505 First Ave., No. 5, Sailors Union Bldg., Seattle, Wash.—Secretary, C. G. Dahlbeck.

Alaska Fish Cannery Workers' Union of the Pacific, 217 First Ave. S., Seattle, Washington — Business Agent, Carlos de los Santos.

Ott Rutzer

Shoalwater Bay Oyster Workers Union, Local No. 14, SIU, AFL-CIO, Nahcotta, Washington — Secretary, Ott Rutzer.

Chinook Cannery Workers' Union Local No. 12, Chinook, Wash.—Secretary, Mrs. Lucille Couch.

Puget Sound Cannery Workers Union, 1405 9th St., Anacortes, Wash — Secretary-Treasurer, Mrs. Bernic Babarovich.

DIRECTORY

Pacific Fisheries Organizations

(Data as of Jan. 1, 1958)

Jim Downey

Bristol Bay Cannery Workers, Local 46, SIU, AFL-CIO, Dillingham, Bristol Bay, Alaska—Business Agent, Jim Downey.

United Cannery Workers of Kodiak Island, AFL-CIO, SIU, P. O. Box 1035, Kodiak, Alaska — President, Harry Lindgren; Secretary-Treasurer, Nick Frost.

Fisheries Division, International Longshoremen's and Warehousemen's Union (Independent), 150 Golden Gate Avenue, San Francisco 2, Calif. —Regional Offices, Southern California: Director, F. T. Moore. 350 N. Avalon Bldg., Los Angeles, Calif.; Northern California: Director, William Chester, 150 Golden Gate Ave., San Francisco, Calif.; Northwest and Alaska: Director, William Gettings, 84 Union St., Seattle, Wash.

Joe Jurich

Local 3 — Secretary, Joe Jurich, 84 Union St., Seattle 1, Washington.

Local 16C, P. O. Box 1195, Juneau, Alaska.

Local 20—Secretary, Rose Wilson, Van Camp Cannery Workers, 1201 Harbor Drive, San Diego, Calif.

Local 30—Secretary, John E. Rahm, Box 379, Ketchikan, Alaska.

Local 33—Secretary, John J. Royal, 339 West 7th St., San Pedro, Calif.

Local 37—Secretary, Matias L. Lagunilla, Alaska Cannery Workers, 213 Main St., Seattle 4, Wash.

Local 38—Secretary, Allice Still, 17 Commercial St., Eureka, Calif.

Local 41, P. O. Box 873, Juneau.

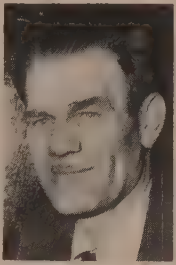
Local 69—Secretary, Stella Shirey, Cannery Workers, Box 56, Ketchikan.

Local 83, P. O. Box 603, Pelican.

Local 85, P. O. Box 483, Petersburg, Alaska.

Local 86, P. O. Box 782, Sitka.

Local 87, P. O. Box 768, Wrangell.



H. (Steve) Stavenes

United Fishermen & Allied Workers' Union, 138 E. Cordova St., Vancouver 4, B. C.—President, H. (Steve) Stavenes; Secretary, Homer Stevens; Business Agent, Alex Gordon; Northern Representative, R. L. Gardiner, Metropole Hall, 3rd Ave., Prince Rupert, B. C.

Vancouver Fishermen's Local — Business Agent, M. J. Canic, 138 E. Cordova.

Vancouver Shoreworkers Local — Jack Cook, 1932 W. 6th.

Steveston Fishermen's Local — Jim Ross, Box 308.

Steveston Shoreworkers Local—Ted Foort, 138 E. Cordova.

Victoria Local—F. J. Smele, 1852 Chestnut Street.

New Westminster Local — Harold Wilcox, 138 E. Cordova.

Annieville Local—Harold Palleson, 10284 Unwin Rd., R. R. 10, New Westminster.

Sunbury Local—Carl Liden, 138 E. Cordova.

Ladner Local—Nick Spilchen, Ladner.

Woodwards Slough Local — Jack Hill, 947 Finn Rd., R. R. 3, Richmond.

Fort Langley Local — E. Burnell, R. R. 5, Langley Prairie.

Albion Local—Tarmo Puska, Websters Corners.

Nanaimo Local — F. W. Meabry, 1630 Waddington.

Gulf Islands Local — T. E. L'Estrange, Thetis Island.

Quathiaski Local — Jack Hewison, R. R. 1, Campbell River.

Pender Harbour—J. Cameron, Madiera Park P. O.

Westview Local — Carl Mietten, Lund.

Namu Local—Roy Giesel.

Skidegate Local—Ed Regnery.

Sointula Local—Earl Kemps.

Alert Bay Local — Pat Connolly, Box 157.

Bella Coola Local—I. P. Melkild.

Sidney Local—Pat Brown, 1154 3rd St.

Gibsons Local—Del Triggs.

Masset Local—Bill Duffus.

Bella Bella Local—Al Newman.

W. Hendrickson

Grays Harbor Gillnetters Union, 1718 Sumner Ave., Aberdeen, Wash. — Chairman, Eldon Lapacek; Secretary - Treasurer, Walfred Hendrickson; Board Chairman, Andy Niemi.

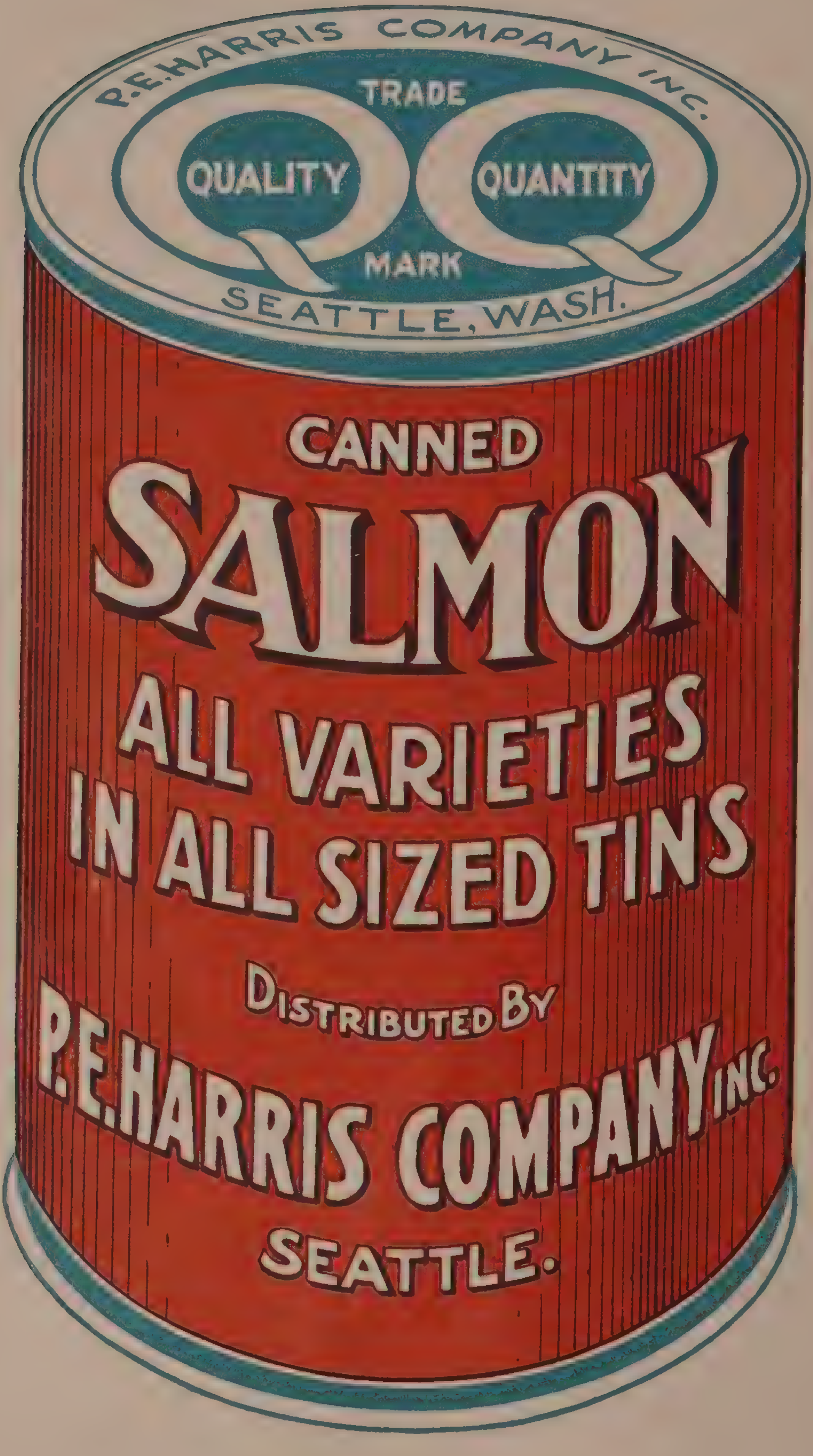
Copper River & Prince William Sound Cannery Workers Union (Independent), P. O. Box 939, Cordova, Alaska—Secretary-Treasurer, Richard Janson, Jr.

Wm. Westerholm

Columbia River Fishermen's Protective Union, 322 10th St., Astoria, Oregon — Executive Secretary, William Westerholm.

Paul E. Graves

Otter Trawlers Union, Box 983, Astoria, Oregon —President, Aldrich Veuhkola; Vice-President, Arthur L. Anderson; Secretary-Treasurer, Paul E. Graves.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FALSE PASS

1957 Salmon Pack Swings Low For Third Year

- Third year of North American canned salmon production below 3.7 million cases in 1957 drew the available supply of this distinctive commodity down to an unprecedented low. Prices held high, due to the scant output and the high costs which low volume rendered inevitable.

Disappointment was general in all areas, and every species was substantially below the average of the preceding 10 years.

In short, 1957 was on the low side of the North American salmon cycle. Aggregate pack of 4,630,838 cases for all North America was barely better than the year before; but the United States' share of the pack—3,187,571 cases—was the smallest production on record, lowest of the three low years 1955, 1956, and 1957, all of which touched the all-time.

Not too much was expected of 1957 by the production prophets, but it fell below forecasts in every area—which American fishermen were quick to ascribe to the high seas fishing of the Japanese fleet off the westward approaches to Alaska.

- United States' pack of canned salmon—3,187,571 cases—was valued at $86,528,281 in 1957; down substantially from the year before, primarily on lower volume.

Species composition was remarkably uniform, with Reds 952,000 cases, Pinks 964,000, and Chums 923,000. Of the minor varieties, Cohoes had 196,000 cases and Chinooks 143,000.

- Every district shared in the disappointment.

Bristol Bay, where there seemed to be a good possibility of a heavy run as result of some indications from 1956, proved a bitter reversal. A heavy run started, but broke-off sharply after a few days—a result for which the American industry found abundant cause in the heavy fishing of the Japanese high seas fleet north of the Aleutian Islands and just west of the Provisional Line at 175° West Longitude.

In that area the Japanese intercepted an enormous run of Red salmon, taking on the order of a million fish a day for a period of about 10 days. American fishermen have no doubt that this operation made its catch from the Bristol Bay salmon population as it left the feeding grounds and headed easterly above the Aleutians for its spawning areas tributary to Bristol Bay.

In this belief the fishermen were joined by the United States industry and scientists, while the American people as a whole by the end of the year were manifesting serious concern over the apparent depletion of a natural resource of Alaska which the United States had maintained under conservation and protective administration for a half-century.

1957 - Pacific Canned Salmon Packs and Values - 1957

DISTRICT	RED, SOCKEYE or BLUEBACK		PINK		CHUM		SILVER or COHO		KING or CHINOOK & STEELHEAD		TOTAL	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value
Alaska	825,158	$29,707,907	739,460	$17,274,887	852,999	$15,254,519	87,809	$2,456,400	53,116	$1,642,888	2,558,542	$66,336,601
Washington	123,701	5,755,229	224,383	5,375,040	66,807	1,190,758	81,574	2,428,642	19,837	768,728	516,302	15,518,397
Oregon	3,510	176,592	778	20,228	3,677	67,433	26,465	893,310	77,970	3,503,968	112,400	4,661,53
California	...	....	...	....	...	....	168	5,392	159	6,360	327	11,752
TOTAL U.S.A.	952,369	35,639,728	964,621	22,670,155	923,483	16,512,710	196,016	5,783,744	151,082	5,921,944	3,187,571	86,528,28
British Columbia	227,436	9,097,440	751,048	16,522,956	245,024	4,532,944	205,873	5,867,380	13,886	402,694	1,443,267	36,423,414
GRAND TOTAL	1,179,805	$44,737,168	1,715,669	$39,193,111	1,168,507	$21,045,654	401,889	$11,651,124	164,968	$6,324,638	4,630,838	$122,951,695

NOTE:- Salmon shipped from Alaska and canned elsewhere is included, as far as possible, in the Alaska pack. The Washington pack includes fish imported from British Columbia and canned on Puget Sound; also some Puget Sound fish canned at Astoria, Ore. The Alaska Chum pack here tabulated includes 2,282 cases, "Freezership" fish, which were inadvertently omitted from some of the other tables

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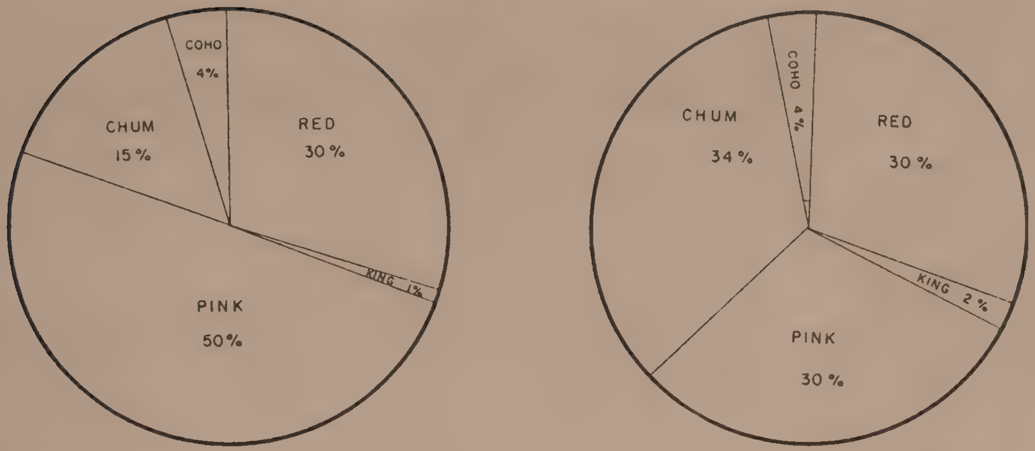
FILLETS READY TO COOK SERVES 3 to 4

BELLANNA BRAND
Vacuum Packed
Fancy Dungeness CRABMEAT
SALT ADDED

"PACKED WITH THE WIGGLE IN ITS TAIL"

Alaska Salmon Pack by Species Percentage



Contribution of each species to the Alaska canned salmon pack, the long-term average shown on the left and the 1957 percentage on the right.

● In view of this situation, the American Section of the International North Pacific Fisheries Commission, composed of the United States, Canada and Japan, late in 1957 sought establishment of a temporary zone of cessation in which there would be no fishing by the treaty nations in the waters where salmon of American origin have been found in significant numbers; and that such a zone of cessation be observed until the North Pacific Commission can determine on the basis of scientific study the permanent location of a line which will "most equitably" divide stocks of salmon of American origin from those of Asian origin.

This move failed of acceptance by the Japanese at the North Pacific Treaty meeting of 1957, and early in 1958 the government of the United States was being pressed strongly for action which might accomplish the same end results outside the North Pacific Commission by direct negotiation with Japan.

At presstime for this issue the matter was receiving active consideration in the United States Congress, the Department of State and the Department of the Interior.

● The downward trend of the odd-year Alaska salmon pack, which has persisted since 1949, was overcome in September when fall Chums appeared in substantial volume in Southeastern Alaska and contributed an additional 100,000 cases. The final pack for 1957 was approximately 2,440,000 cases. The catch also included 1,300,000 fish, primarily Sockeyes, which were cured or frozen by freezer ships.

The principal reason for 1957's poor catch of salmon was the universal "failure" of Pink salmon runs throughout the Territory. Although satisfactory escapements occurred in 1955 on the south side of the Peninsula and at Kodiak, Port Dick, and the lower portion of Southeastern Alaska, the pink salmon return was disappointing everywhere. The seine catch of nearly three million fish offshore from the west coast of Prince of Wales Island in late July and early August was an unusual development. Apparently competition between gear was so heavy that few seiners made good profits.

● Fortunately, 1957 was an above-average year for Chum salmon, and this helped somewhat to offset the lower abundance of other species in the Nushagak River, South Peninsula, Cook Inlet, Kodiak, Prince William Sound, and some sections of Southeastern. The year's pack was made up of 34% Chums compared to the usual yearly average of 15%.

The Sockeye catch failed for the second successive year on the Nushagak River, but this was partly com-

● Accompanying analysis of the Alaska salmon run and pack of 1957, with interpretation, and appraisal of the spawning escapements in the principal areas, was prepared by the Alaska Regional staff of the U.S. Bureau of Commercial Fisheries.

It represents the early combined views of fishery administrators and research biologists with respect to the run of 1957; their views as to the correlation between the observed spawning and subsequent seaward migration of the parent year of the cycle; the prospectors for the cycle's future as indicated by such early evidence as 1957 spawning escapement; and comments on man's utilization of the resource in 1957 and their efforts to administer that utilization in accord with the principles of sustained-yield conservation.

1957 - PACIFIC CANNED SALMON PACK - 1957

(Figures reduced to uniform basis of 48-lb (full case) units. Alaska pack includes fish shipped from Alaska and canned elsewhere.)

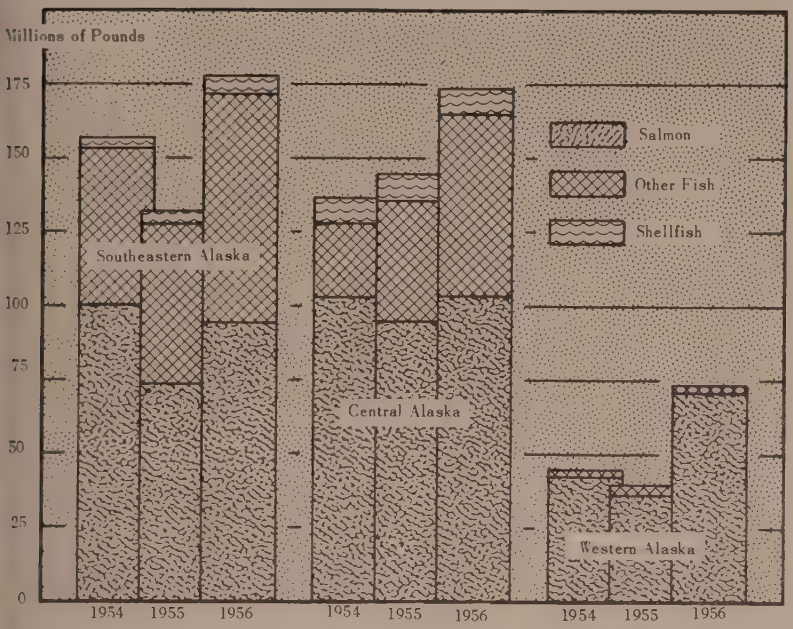
Species	Alaska	Puget Sound	Columbia River	Coastal Areas	Total U.S.	British Columbia	Grand Total
Red or Sockeye	825,158	121,010	4,041	2,160	952,369	227,436	1,179,805
Pink	739,460	223,966	1,195	.	964,621	751,048	1,715,669
Chum or Keta	352,999	65,421	4,369	694	923,483	245,024	1,168,507
Coho or Silver	87,809	79,339	28,669	199	196,016	205,873	401,889
Chinook or King	53,045	3,173	87,025	165	143,408	12,571	155,979
Steelhead	71		7,603	.	7,674	1,315	8,989
TOTAL	2,558,542	492,909	132,902	3,218	3,187,571	1,443,267	4,630,838

PACK OF ALASKA CANNED SALMON BY DISTRICTS

Year	SOUTHEAST ALASKA							CENTRAL ALASKA							WESTERN ALASKA								TOTAL	
	Plants Oper	Red	Pink	Chum	Coho	King	Total Cases	Plants Oper.	Red	Pink	Chum	Coho	King	Total Cases	Plants Oper.	Red	Pink	Chum	Coho	King	Total Cases	Plant's Oper	CASES	Year
1905	13	207,375	142,008	37,685	41,079	5,460	433,607	9	345,575	3,235	.	16,518	6,427	371,755	25	1,021,478	23,354	4,287	9,797	30,238	1,089,154	47	1,894,516	1905
1906	20	250,567	326,713	131,405	84,149	2,396	795,230	8	451,659	3,188	...	10,316	7,861	473,024	19	798,504	19,866	123,407	16,278	20,680	978,735	47	2,246,989	1906
1907	22	177,149	542,268	140,392	58,632	1,289	919,730	8	482,968	10,255	...	15,258	14,355	522,836	18	657,687	18,244	44,025	11,784	27,794	759,534	48	2,202,100	1907
1908	23	198,366	592,638	180,204	48,963	2,552	1,022,723	8	377,101	30,661	..	11,543	6,416	425,721	19	1,087,211	20,834	38,309	8,426	14,824	1,169,604	50	2,618,048	1908
1909	19	280,542	455,999	83,001	39,920	857	860,319	8	358,285	5,581	...	10,275	16,913	391,054	18	1,074,667	3,293	37,711	6,361	30,264	1,152,296	45	2,403,669	1909
1910	23	282,265	494,363	231,735	82,620	402	1,091,385	10	364,875	31,797	131	19,928	15,786	432,517	19	825,447	31,348	22,352	11,641	24,087	914,138	52	2,438,777	1910
1911	32	238,895	969,866	290,843	100,793	1,441	1,601,838	11	412,647	24,143	2,008	17,326	15,862	471,986	21	669,163	27,347	10,969	11,585	28,075	747,139	64	2,820,963	1911
1912	51	254,851	1,053,847	589,578	134,914	6,607	2,039,777	14	422,347	136,891	29,591	19,782	14,198	622,809	22	1,227,060	114,247	19,359	15,088	21,789	1,397,543	87	4,060,129	1912
1913	42	190,685	1,299,400	254,689	58,071	1,006	1,803,851	14	364,253	49,299	5,038	13,284	15,393	447,267	23	1,419,381	54,217	7,927	6,022	11,768	1,505,315	79	3,756,433	1913
1914	45	294,842	872,504	597,435	112,163	12,087	1,889,031	14	395,110	195,830	17,693	36,739	11,132	656,504	23	1,511,622	29,489	47,350	8,890	24,946	1,622,297	82	4,167,832	1914
1915	46	229,709	1,820,171	375,260	90,161	25,135	2,540,436	17	500,000	43,951	39,404	26,062	22,978	632,395	23	1,192,248	6,251	69,744	10,347	37,581	1,316,171	86	4,489,002	1915
1916	54	182,075	1,335,291	505,405	182,405	18,482	2,223,658	19	572,096	371,845	64,320	55,298	22,160	1,085,719	27	1,365,271	46,410	145,513	25,481	25,537	1,610,212	100	4,919,589	1916
1917	60	202,951	2,149,075	750,187	152,538	29,657	3,284,408	26	725,925	137,955	86,764	36,065	19,236	1,005,945	29	1,556,005	11,436	40,762	5,105	18,659	1,631,967	113	5,922,320	1917
1918	75	226,108	2,034,997	954,498	152,689	17,248	3,385,540	29	662,829	358,491	313,196	47,904	21,818	1,404,238	30	1,729,622	24,724	98,965	15,979	18,301	1,887,591	134	6,677,369	1918
1919	75	240,208	1,521,897	1,146,943	169,300	30,016	3,108,364	30	437,341	107,924	163,530	54,596	12,075	775,466	28	526,794	27,613	37,989	6,242	109,642	707,280	133	4,591,110	1919
1920	80	199,829	1,026,862	830,538	112,178	32,869	2,202,276	35	533,122	510,350	148,122	67,744	20,417	1,279,755	28	742,829	76,222	44,048	12,389	37,990	913,478	143	4,395,509	1920
1921	30	105,084	416,958	182,272	90,845	9,034	804,193	27	596,200	13,116	28,305	11,425	10,225	659,271	27	1,057,510	10,397	37,029	7,513	29,060	1,141,509	84	2,604,973	1921
1922	57	121,652	1,313,280	425,947	128,023	5,777	1,994,679	36	567,576	331,005	88,321	36,623	8,930	1,032,455	28	1,386,119	13,261	48,228	9,666	16,897	1,474,221	121	4,501,355	1922
1923	67	178,962	2,257,768	434,490	129,990	12,857	3,014,067	39	441,774	197,291	72,821	32,940	11,537	756,363	30	1,257,594	77	19,834	822	14,583	1,292,910	136	5,063,340	1923
1924	65	192,806	1,686,884	799,215	110,002	8,259	2,797,166	38	442,876	892,667	192,901	68,883	10,593	1,607,920	31	814,042	33,517	35,067	2,322	14,889	899,837	134	5,305,923	1924
1925	62	151,140	1,701,849	835,599	94,539	12,493	2,795,611	37	364,721	402,801	199,797	68,267	19,289	1,054,875	30	549,429	590	29,999	1,393	18,992	600,403	129	4,450,898	1925
1926	61	173,891	2,158,699	618,397	96,389	10,679	3,058,055	43	630,505	1,144,180	243,808	104,309	23,683	2,146,485	28	1,352,691	35,470	40,238	1,829	18,114	1,448,342	132	6,652,882	1926
1927	62	115,664	581,728	224,696	114,331	9,131	1,045,823	47	320,159	833,028	253,410	138,243	42,948	1,587,788	29	884,740		29,262	55	18,404	932,461	138	3,566,072	1927
1928	60	106,793	2,137,796	566,689	145,323	5,596	2,962,197	62	431,924	643,816	378,499	152,066	32,567	1,638,872	29	1,405,344	3,852	46,316	497	13,032	1,469,041	151	6,070,110	1928
1929	59	161,580	1,541,463	290,742	97,850	6,982	2,098,617	70	455,997	1,028,790	498,873	68,538	36,526	2,088,544	30	1,075,473	253	71,261	5,862	30,232	1,183,081	159	5,370,242	1929
1930	57	216,743	2,296,270	283,553	155,844	10,894	2,963,304	68	270,310	839,751	281,111	170,741	32,123	1,594,036	27	361,734	14,631	31,336	3,403	20,543	431,647	152	4,988,987	1930
1931	41	148,485	2,038,388	277,225	88,841	14,926	2,567,865	49	439,572	940,124	193,131	81,275	27,567	1,681,669	25	1,107,725		66,553	92	8,631	1,183,001	115	5,432,535	1931
1932	31	140,356	1,380,093	582,290	88,293	23,637	2,214,669	34	659,539	720,893	145,660	60,363	32,317	1,618,772	22	1,304,832	15,587	93,178	695	12,755	1,427,047	87	5,260,488	1932
1933	38	81,122	1,477,608	425,869	95,629	8,130	2,088,358	31	486,528	703,696	207,363	64,548	23,792	1,485,927	23	1,614,721	2,139	25,013	1,456	9,084	1,652,413	92	5,226,698	1933
1934	47	104,413	2,622,186	393,904	159,509	15,606	3,295,618	45	707,754	1,198,457	307,649	74,832	27,005	2,315,697	22	1,813,835	1,959	33,502	1,219	8,756	1,859,271	114	7,470,586	1934
1935	46	159,506	2,209,373	541,152	141,501	11,496	3,063,028	44	391,088	1,045,155	302,011	47,198	24,338	1,809,790	9	272,531		9,567	219	641	283,008	99	5,155,826	1935
1936	46	219,531	2,959,774	784,455	136,043	22,105	4,121,908	46	839,243	1,598,585	295,956	80,608	31,820	2,846,212	24	1,423,781	30,911	26,572	1,581	3,983	1,486,828	116	8,454,948	1936
1937	45	165,170	2,138,264	503,235	86,912	30,613	2,924,194	47	459,399	1,480,658	190,425	42,028	31,234	2,203,744	24	1,476,585	376	35,454	138	7,547	1,520,100	116	6,654,038	1937
1938	39	189,880	1,886,104	473,619	140,791	16,339	2,706,733	42	484,518	1,336,000	253,905	75,596	20,146	2,170,165	17	1,848,725		59,335	345	6,241	1,914,646	98	6,791,544	1938
1939	48	195,907	1,474,269	293,316	65,906	2,364	2,031,762	47	657,198	1,034,623	237,148	37,250	21,023	1,987,242	24	1,118,233	627	95,948	.	5,399	1,220,207	119	5,239,211	1939
1940	46	125,462	1,452,037	484,476	155,577	1,539	2,219,091	42	384,266	1,441,266	343,072	126,878	18,993	2,314,475	11	443,653	14,088	32,991	1,675	2,405	494,812	99	5,028,378	1940
1941	47	137,861	3,631,491	321,118	193,751	1,812	4,286,033	44	413,658	1,005,029	333,618	159,023	30,825	1,942,153	19	613,369	129	55,771	3,439	5,609	678,317	105	6,906,503	1941
1942	47	121,083	1,758,741	597,373	189,210	2,033	2,668,779	44	352,475	1,051,359	328,860	180,698	34,916	1,948,308	7	438,111	8,550	16,556	2,629	6,178	472,024	98	5,089,109	1942
1943	34	85,313	1,042,610	672,359	92,245	1,868	1,894,395	34	582,287	1,277,915	167,809	66,311	37,421	2,131,743	14	1,314,575	1,532	42,410	178	11,676	1,370,371	81	5,396,509	1943
1944	38	131,580	1,081,334	655,188	88,380	1,765	1,958,247	45	461,718	1,002,056	286,498	96,255	29,718	1,876,245	13	987,459	3,932	44,039	2,418	5,456	1,043,304	94	4,877,796	1944
1945	41	129,514	1,039,521	265,845	107,425	2,582	1,544,887	43	434,872	1,198,665	331,654	85,506	30,041	2,080,738	8	609,132	1,623	92,551	3,103	9,086	715,495	92	4,341,120	1945
1946	41	59,029	999,443	321,037	94,074	1,612	1,475,195	48	350,728	1,053,605	257,909	96,301	25,356	1,783,899	20	656,141	4,073	38,209	2,686	10,906	712,015	108	3,971,109	1946
1947	40	56,032	680,693	260,666	72,434	4,019	1,073,844	47	470,056	1,034,475	196,731	74,388	34,790	1,810,430	21	1,350,151	8,449	42,814	1,893	14,885	1,418,192	107	4,302,466	1947
1948	39	39,317	683,972	403,959	165,033	5,973	1,298,254	57	318,638	616,822	291,977	69,259	34,774	1,331,470	24	1,277,508	3,250	78,725	7,507	13,898	1,380,888	120	4,010,612	1948
1949	36	39,485	2,102,604	243,080	125,059	1,046	2,511,274	55	391,244	580,438	221,089	59,409	37,213	1,289,393	21	529,859		44,140	4,411	11,974	590,384	112	4,391,051	1949
1950	36	49,475	535,662	500,422	116,344	560	1,202,463	55	513,985	558,263	242,301	68,233	40,386	1,423,158	21	590,048	1,609	35,056	6,924	13,375	647,012	112	3,272,643	1950
1951	42	70,317	1,226,582	466,334	262,393	636	2,028,262	59	362,554	333,091	227,632	72,762	71,648	1,067,687	13	339,592	75	25,521	8,003	15,328	388,519	114	3,484,468	1951
1952	40	74,510	593,422	527,960	122,277	2,756	1,320,925	48	377,094	577,407	399,864	67,117	34,935	1,456,417	21	729,560	1,339	38,836	7,692	19,359	796,786	109	3,574,128	1952
1953	35	120,971	355,580	418,260	90,489	1,571	986,871	40	330,933	604,281	333,390	36,730	33,160	1,338,494	19	530,186	1,108	45,398	2,703	20,810	600,205	94	2,925,570	1953
1954	27	113,130	519,364	601,800	87,996	2,642	1,324,932	39	299,325	621,214	381,536	77,041	28,257	1,407,373	12	393,201	9,335	42,890	6,228	22,695	474,349	78	3,207,154	1954
1955	26	55,561	547,765	177,690	64,314	1,157	846,987	44	233,290	722,448	162,399	47,294	22,078	1,188,109	12	372,776	90	22,968	2,476	24,563	422,873	79	2,457,969	1955
1956	23	80,855	565,076	267,934	44,030	2,082	959,977	44	357,242	547,775	375,417	47,525	22,082	1,350,041	11	577,461	3,198	31,683	4,385	22,889	640,336	78	2,950,354	1956
1957	23	78,830	404,632	361,449	49,471	1,353	895,735	36	175,182	332,214	437,894	29,330	15,895	990,515	13	490,982	2	31,072	5,220	33,922	561,198	72	2,447,448	1957
Av.	33	72,245	753,466	396,889	112,791	1,977	1,337,568	47	335,949	549,395	307,410	57,470	34,043	1,284,266	17	583,115	2,050	39,629	5,555	19,883	650,305	97	3,272,140	Av.

NOTE:- "Average" is for the last ten years. Figures for years prior to 1952, and those for 1956, are revised from official U.S. data; those for 1957 are from "Pacific Fisherman's" own compilation; both are limited to fish canned in Alaska, and do not include Alaska fish canned on Puget Sound. The latter are included in figures from 1952 through 1955, which are from "Pacific Fisherman's" own data.

ALASKA CATCH, 1954 - 1956



pensated by a productive week on the Kvichak starting July 8. The False Pass Sockeye catch was very poor, and abundance was off at Port Moller also. Previously stable Cook Inlet produced half its normal pack of Sockeyes for the first time in many years. Sockeye runs elsewhere in the Territory were about average at recent-year levels.

The King and Coho fisheries were not distinguished by unusual features except that Kings appeared early in Cook Inlet and so largely escaped the June effort, and Cohos were unusually fine in quality and size throughout the season in Southeastern but were in scant supply in streams of the Gulf of Alaska, including the Copper River.

- There is some consolation in the fact that escapements of all species, with few exceptions, were much better in both size and distribution than the small catches would indicate—this despite scant precipitation and low stream flows that approached drought conditions in some districts. Given favorable natural survival, the progeny of the 1957 escapements should be adequate in most cases to support substantial fisheries in the years of their return.

Bristol Bay

- As anticipated, the 1957 Sockeye production of Bristol Bay fell below that of 1956. However, the pack of 465,000 cases plus 900,000 fish to freezers is not out of line with recent production, although the Nushagak run fell considerably short of expectation. With fishing effort almost doubled over that of 1956, it was necessary to restrict severely the amount of fishing time to obtain necessary escapements.

Escapement into all major rivers was counted from towers or weirs. Thus the escapement data plus the catch data provides a good estimate of the total run and the proportion caught. Comparison of catch and escapement for the major systems is as follows:

	Catch	*Escapement*
Togiak	37,967	32,000
Nushagak	539,392	465,000
Kvichak-Naknek	4,648,673	3,729,000
Egegik	789,875	340,000
Ugashik	362,145	205,000
Total	6,378,052	4,771,000
Percent	57%	43%

Bristol Bay Forecast

- Early B. C. F. forecasts of Bristol Bay Red salmon runs are at the best

WESTERN ALASKA CANNED SALMON PACKS

BRISTOL BAY AND YUKON (Cases)							ALASKA PENINSULA, NORTH SIDE (Cases)						
	Pinks	Chums	Cohoes	Kings	TOTAL	YEAR	Reds	Pinks	Chums	Cohoes	Kings	TOTAL	GRAND TOTAL
1,588,008	.....	24,559	1,456	9,197	1,623,220	1933	26,665	.....	1,490	.....	284	28,439	1,651,659
1,726,769	1,950	32,222	1,219	8,580	1,770,759	1934	87,379	.....	974	.....	217	88,570	1,859,329
231,014	.....	6,995	223	660	238,892	1935	34,920	4	2,802	.....	175	37,961	[illegible],853
1,388,776	30,773	25,045	1,571	4,092	1,450,257	1936	38,930	293	1,511	.....	214	40,948	1,[illegible],295
1,421,369	.....	29,286	138	6,897	1,457,690	1937	55,315	1	6,170	.....	234	61,720	1,[illegible],410
1,772,885	.....	54,551	345	5,446	1,833,227	1938	73,942	.....	5,063	.....	1,053	80,058	1,913,285
1,059,181	.....	88,272	.....	5,038	1,152,491	1939	56,310	2	6,478	.....	465	63,255	1,215,746
402,899	16,081	[illegible]	1,445	3,504	454,553	1940	56,158	.....	4,914	.....	79	61,151	515,704
577,024	9	50,901	3,436	5,785	637,155	1941	36,366	95	4,953	.....	179	41,593	[illegible],748
438,053	8,564	16,749	2,638	7,001	473,005	1942	.....	.....	.....	.....	.....	.....	473,005
1,275,212	.....	37,757	180	11,826	1,324,975	1943	39,330	54	3,680	.....	56	43,120	1,368,[illegible]
954,694	3,911	31,838	2,408	5,420	998,271	1944	31,849	130	12,855	.....	21	44,855	1,043,126
576,318	.....	66,888	3,105	9,478	655,789	1945	32,342	127	25,007	.....	22	57,498	723,287
628,240	4,073	36,436	2,663	10,768	682,180	1946	27,821	.....	1,798	.....	167	29,786	711,966
1,335,031	.....	35,802	1,866	13,737	1,386,436	1947	25,675	.....	6,047	8	71	31,801	1,418,237
1,212,233	3,148	64,167	4,140	13,576	1,297,264	1948	65,961	101	17,474	1,220	310	85,066	1,382,330
525,309	.....	33,345	2,214	13,795	574,663	1949	10,612	.....	2,954	2,349	179	16,094	[illegible],757
577,158	1,607	16,588	2,840	13,217	611,410	1950	10,335	2	18,294	4,098	158	32,687	[illegible],162
309,936	.....	15,744	4,366	15,086	345,132	1951	29,656	75	9,777	3,637	242	43,387	[illegible],519
715,083	1,339	31,457	1,661	19,236	768,776	1952	14,477	.....	7,379	6,031	123	28,010	7[illegible],786
443,137	1	36,921	78	20,319	500,456	1953	17,391	1,175	9,157	3,301	396	31,420	531,876
307,469	4,441	31,694	1,630	8,453	353,687	1954	12,352	5,103	7,308	3,387	510	28,660	382,347
313,962	.....	20,413	998	13,187	348,560	1955	20,508	91	2,266	550	474	23,889	372,449
531,100	3,918	24,178	4,130	9,357	572,683	1956	48,661	.....	6,530	258	547	55,996	628,679
464,306	.....	23,982	4,053	28,695	521,03[illegible]	1957	20,192	2	7,160	1,025	455	28,834	549,870
[illegible]	1,445	29,848	2,611	15,492	589,366	Aver.	25,014	654	8,830	2,580	339	37,424	627,777

NOTE: Figures are based on U.S. Fish & Wildlife Service final data, which DO NOT include fish caught in these areas and canned elsewhere, and accordingly are somewhat different from those in other tables compiled independently by Pacific Fisherman. Figures for the latest year shown are preliminary. "Average" figures are for last ten years. Bristol Bay totals and Grand totals include fish packed in Yukon-Kuskokwim district.

PARKS CANNING CO., INC.

and

WESTERN FISHERIES COMPANY

Offices — 309 Colman Building
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Canneries — Kodiak and Cordova, Alaska

Products — Top Quality Alaska and
Copper River Salmon

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PACKED with care for those who appreciate *quality!* Only the finest seafoods, taken from icy North Pacific waters, bear North Pacific's labels (listed below, right). A quality array of finer flavored, nutritious seafoods that mean *repeat* sales.

CANNED SALMON: Copper River Chinook and Sockeye; Alaska Reds, Cohoe, Pinks and Chums; Puget Sound and Columbia River Salmon. Packed 48, ½-lb. flats and 48, 1-lb. talls.

CANNED CRABMEAT: Fancy pack Dungeness and King varieties, Canned in 48, ½-lb. flats, 24, ½-lb. flats.

★

NORTHWEST TUNA

LABELS:

RED SOCKEYES—Royal Red
MEDIUM REDS—Silver Pride
PINKS—Sno-Time & Royal Pink
CHUMS—Sno-Tip

CRABMEAT
RAZOR CLAMS — **Royal Red**

TUNA—Royal Red
—Sno-Tip

ROYAL PINK
SALMON
SNO-TIP
ALASKA
Salmon
CANTEEN
ALASKA
SALMON
Royal Red
Royal Red
ALASKA CRAB MEAT
Royal Red
SALMON

North Pacific Seafoods

COLMAN BUILDING ● SEATTLE 4, WASHINGTON
MUtual 1011 **R. S. Ennis, Jr., Manager**

"educated guesses" because data were not yet available upon which to base forecasts that have reliable mathematical limits. An interpretation of the history of parent escapements and recent trends of abundance offers the best basis of predicting the strength of the 1958 runs.

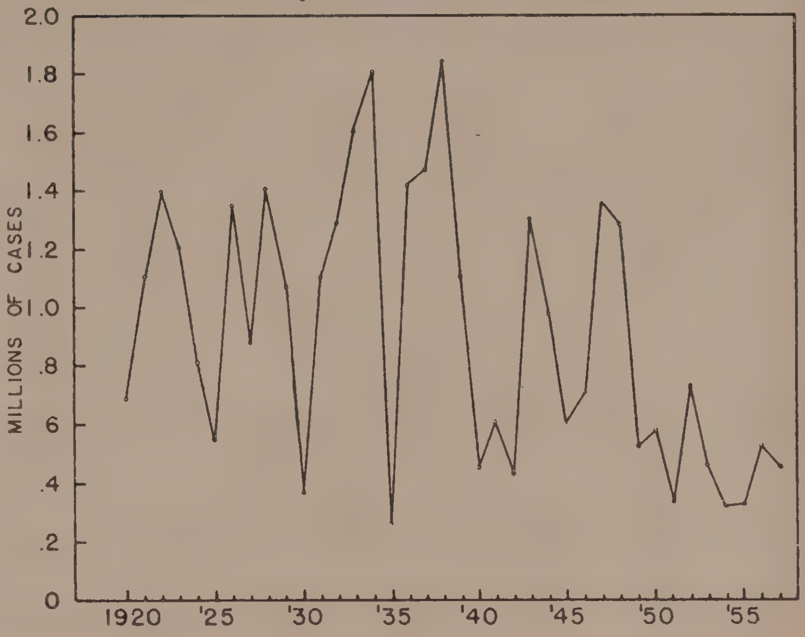
For the Naknek-Kvichak B. C. F. estimated that the 1958 run will be slightly smaller than the 8 million fish of 1957. The Nushagak has declined since 1948 and the poor escapements of 1953 and 1954 cannot be expected to produce a bigger run than the 1957 one of slightly over a million. For the Egegik, a greater than average run (1.5 million) is not to be expected. On the Ugashik, the 1952 and 1953 escapements were average and 350 thousand above average respectively; so an average (1.3 million), or above average run may be expected in 1958.

Outlook for 1958

- So far as the Western Alaska Red salmon fishery is concerned, the outlook for 1958 is not bright.

This area, which produced 643,048

Bristol Bay Red Salmon Production



Weekly Red Salmon Packs on Bristol Bay

YEAR	FIRST WEEK	SECOND WEEK	THIRD WEEK	FOURTH WEEK	TO CLOSE	TOTAL	YEAR
1940	(July 6) 221,687	(July 13) 139,853	(July 20) 33,848	(July 28) 4,606	. . .	399,994	1940
1941	(July 5) 204,929	(July 12) 206,049	(July 19) 127,573	(July 28) 31,316	. . .	569,867	1941
1942	(July 4) 149,175	(July 11) 142,145	(July 18) 93,174	(July 25) 44,323	7,357	436,174	1942
1943	(July 3) 284,635	(July 10) 449,076	(July 17) 272,074	(July 24) 242,122	27,174	1,275,081	1943
1944	(July 8) 431,421	(July 15) 347,149	(July 22) 116,514	(July 29) 18,045	. . .	944,129	1944
1945	(July 7) 236,413	(July 14) 233,332	(July 21) 84,681	(July 28) 15,405	. . .	569,831	1945
1946	(July 6) 241,948	(July 13) 241,405	(July 20) 88,520	(July 27) 30,831	. . .	602,704	1946
1947	(July 5) 641,401	(July 12) 376,575	(July 19) 242,854	(July 26) 70,975	3,226	1,335,031	1947
1948	(July 3) 482,252	(July 10) 464,488	(July 17) 169,806	(July 24) 112,111	7,680	1,236,226	1948
1949	(July 2) 260,145	(July 9) 142,637	(July 16) 86,865	(July 23) 30,675	3,581	523,903	1949
1950	(July 1) 93,006	(July 8) 370,340	(July 15) 89,070	(July 22) 10,832	411	563,659	1950
1951	(June 30) 59,185	(July 7) 127,553	(July 14) 73,692	(July 21) 59,143	. . .	319,573	1951
1952	(June 28) 92,073	(July 5) 228,069	(July 12) 256,014	(July 19) 119,729	21,618	712,503	1952
1953	(June 27) 63,478	(July 4) 191,378	(July 11) 127,590	(July 18) 51,229	9,382	443,057	1953
1954	(July 3) 116,428	(July 10) 97,034	(July 17) 75,381	(July 24) 17,230	1,396	307,469	1954
1955	(July 2) 73,936	(July 9) 142,358	(July 16) 86,500	(July 23) 8,469	2,369	313,632	1955
1956	(June 30) 32,826	(July 7) 121,942	(July 14) 266,146	(July 21) 103,065	7,121	531,100	1956
1957	(June 29) 57,403	(July 6) 134,668	(July 13) 223,727	(July 20) 40,512	7,996	464,306	1957

Compiled from U.S. Fish and Wildlife Service preliminary statistics, and include only salmon canned in that area.

Figures in first column of table are for the total pack (in full cases of 48 lbs. net) to dates shown; those following show weekly packs.

BRISTOL BAY SALMON PACKS

(Based on preliminary data, not identical with final figures shown in some other tabulations.)

YEAR	NUSHAGAK	NAKNEK-KVICHAK	EGEGIK	UGASHIK	TOTAL	YEAR
1940	166,208	26,786	16,435	....	450,229	1940
1941	172,835	417,564	29,894	3,555	623,848	1941
1942	196,671	222,281	......	48,239	467,191	1942
1943	282,100	958,144	......	78,110	1,318,354	1943
1944	270,034	588,414	44,113	80,241	982,802	1944
1945	222,738	351,638	......	67,577	641,953	1945
1946	151,216	424,904	22,671	48,534	647,325	1946
1947	220,181	1,015,246	73,422	63,408	1,372,369	1947
1948	262,581	829,407	96,488	127,692	1,316,168	1948
1949	79,173	346,287	84,294	53,266	563,020	1949
1950	115,019	345,587	59,992	65,957	586,555	1950
1951	31,143	239,289	43,590	25,090	339,112	1951
1952	81,720	600,009	52,277	21,594	755,600	1952
1953	36,544	342,266	63,818	45,455	488,083	1953
1954	51,446	149,730	59,872	92,639	353,687	1954
1955	85,573	208,096	39,202	15,689	348,560	1955
1956	106,943	354,560	73,328	37,852	572,683	1956
1957	78,587	336,236	63,330	30,531	508,684	1957

NOTE: - The above table covers fish canned in the district; and does not include fish frozen on Bristol Bay and subsequently canned elsewhere.

SINCE 1895

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SELLING AGENTS

CANNED SALMON

KELLEY-CLARKE
ESTAB. 1895
COMPANY

NORTHWEST TUNA

DUNGENESS CRABMEAT

1957-WESTERN ALASKA CANNED SALMON PACK-1957

	COMPANY	CANNERY LOCATION	RED			CHUM	COHO	KING or CHINOOK			GRAND TOTAL (full cases)	
			1-lb. Talls (etc.)	½-lb. Flats (8 doz.)	Total (full cases)	1-lb. Talls (etc.)	1-lb. Talls (etc.)	1-lb Talls	½-lb. Flats (8 doz.)	Total (full cases)		
	CANNED IN WESTERN ALASKA											
1	Alaska Packers Association	Nushagak (A)	10,928	...	10,928	2,778	750	2,737	...	2,737	17,193	1
		Naknek-Koichak (B)	75,531	...	75,531	858	...	218	...	218	76,607	1
		Egegik	22,917	...	22,917	370	2	59	...	59	23,348	1
		Ugashik	28,046	70	28,116	1,270	...	141	...	141	29,527	1
2	American Packing Co.	Naknek (C & D)	3,416	...	3,416	56	...	...	...	...	3,472	2
3	Henry Bogler	Andreafsky (Yukon)	...	...	...	...	...	(1) 783	...	783	783	3
4	Columbia River Packers Association	Nushagak (E)	2,770	...	2,770	1,289	117	1,621	...	1,621	5,797	4
		Naknek (C & D)	39,249	...	39,249	1,622	...	241	...	241	41,112	4
5	Egegik Packing Co.	Egegik	12,378	3,906	16,284	413	...	45	...	45	16,742	5
6	Global Fishing Co.	Koggiung & Egegik (F & G)	21,984	1,167	23,151	394	...	67	...	67	23,612	6
7	Intercoastal Packing Co.	Naknek-Kvichak (F)	13,746	...	13,746	156	...	40	...	40	13,942	7
8	Libby, McNeill & Libby	Ekuk, Koggiung & Egegik(H)(2)	73,919	...	73,919	3,612	750	2,912	...	2,912	81,193	8
9	Malaspina Fisheries Co.	Red Salmon & Nakeen (C & D)	2,000	...	2,000	33	...	...	...	...	2,033	9
10	Marine Fishing & Packing Co.	Koggiung & Egegik (F & G)	6,017	...	6,017	93	...	14	...	14	6,124	10
11	Nakat Packing Corporation	Nakeen	39,690	...	39,690	1,918	...	305	...	305	41,913	11
12	Naknek Independent Pkg. Co.*	Naknek	2,420	...	2,420	59	161	54	...	54	2,694	12
13	New England Fish Co.	Dillingham (E) & Pederson Point (F) (6)	27,753	...	27,753	1,574	117	1,693	...	1,693	31,137	13
14	Northern Commercial Co.	Kwiguk (Yukon)	...	...	...	...	...	...	3,979	3,979	3,979	14
15	Pacific American Fisheries, Inc.	Dillingham, Naknek (F) & Port Moller	34,791	14,694	49,485	(3) 9,978	(3) 1,291	3,739	26	3,765	64,519	15
16	Queen Fisheries, Inc.	Nushagak	...	13,910	13,910	(4) 2,682	(4) 2,032	...	2,366	2,366	20,990	16
17	St. Mary's Mission	Andreafsky (Yukon)	...	...	...	...	...	...	1,850	1,850	1,850	17
18	Wards Cove Packing Co.	Red Salmon (Naknek)	39,680	...	39,680	1,919	...	305	...	305	41,904	18
19	Yukon River Fishermen's Cooperative Association	Alakanuk (Yukon)	...	...	...	...	...	10,631	(5) 96	10,727	10,727	19
	TOTAL: - WESTERN ALASKA CANNERIES		457,235	33,747	490,982	31,074	5,220	25,605	8,317	33,922	561,198	
	WESTERN ALASKA SALMON SHIPPED OUT AND CANNED ELSEWHERE											
	OPERATOR	VESSEL or SOURCE										
1	Alaska Reefer Fisheries	"Alaska Reefer" & "Marsha Ann" (Z)	(7) 10,995	...	10,995	45	...	(7) 696	...	696	11,736	1
2	Arctic Maid Fisheries	"Arctic Maid" (X & Y)	(8) 4,403	...	4,403	(8) 20	(8) 698	(8) 8	...	8	5,129	2
		"Arctic Maid" (Z)	(9) 10,237	...	10,237	...	...	400	...	400	10,637	2
3	Dressel-Collins Fish Co.	"Pacific Queen" (W) §	...	5,917	5,917	...	...	...	...	...	5,917	3
4	Global Fishing Co.	Bristol Bay & Nor. Pen. (V)	4,403	...	4,403	824	6	31	...	31	5,264	4
5	North Star Fisheries	"North Star" (U)	12,698	...	12,698	...	...	...	...	...	12,698	5
6	Northern Reefer, Inc.	"Northern Reefer" (U)	3,200	2,112	5,312	60	...	...	...	...	5,372	6
7	Pacific Queen Fisheries	"Pacific Queen" (W)	5,004	...	5,004	...	...	772	...	772	5,776	7
8	Pacific Reefer Fisheries	"Pacific Reefer (U)	4,789	4,629	9,418	(10) 152	...	...	...	...	9,570	8
9	Peninsula Packers	Bristol Bay & Nor. Pen (V)	700	...	700	66	...	...	...	...	766	9
10	Whitney & Co.	"Reefer King" (T) ¶	3,709	(11) 953	4,662	837	...	39	...	39	5,538	10
11	John S. York	"K-J" (S)	1,149	...	1,149	16	...	...	...	...	1,165	11
	TOTAL WESTERN ALASKA SALMON CANNED ELSEWHERE		61,287	13,611	74,898	2,020	704	1,946	...	1,946	79,568	
	GRAND TOTAL, WESTERN ALASKA		518,522	47,358	565,880	33,094	5,924	27,551	8,317	35,868	640,766	

NOTES:- Many of the packs listed were made, partly or wholly, in plants of other companies, through joint-operating or custom-canning arrangements, most of which were as follows: (A) in Libby Ekuk; (B) Includes share from joint in Libby Koggiung; (C) in Wards Cove Red Salmon; (D) in Nakat Nakeen; (E) in P. A. F. Dillingham; (F) in Libby Koggiung; (G) in Egegik Pkg. Co.; (H) in A. P. A. Egegik.

FOUR - POUND cans (in "Shipped Out" section only) are included with Talls as follows: (7) 1,480 cases Reds & 696 Kings; (8) 254 Reds, 20 Chums, 698 Cohoes & 8 Kings, all canned by King Crab, Inc. (9) 2,395 Reds & 400 Kings. ONE-POUND FLATS are included with Talls as follows: (1) All #1 Flats in 3,133 12-lb. cartons; (2) 3,093 cases. HALVES (full cases) are included in #1 Tall columns as follows: (3) 1,558 Chums & 221 Cohoes; (4) All Halves. (10) 114 cs. QUARTERS (basis 48 lbs.) are included with Halves as follows: (5) 96 cs. Kings; (11) 51 cs. Reds.

PINKS are included with Chums, as the only Pinks reported canned in Western Alaska were (3) two cases in P. A. F. pack.

(6) Dillingham & Pederson Point operations formerly conducted by Alaska Pacific Salmon Co. §Fish purchased in Seattle. ¶Formerly operated by Carl Rubinstein Co.

*SALMON SHIPPED OUT includes NO fish canned in Western Alaska, but consists of Western Alaska fish canned for Freezers' or Fishing Companies' account, either in other parts of Alaska or on Puget Sound. Plants in which the fish were canned were as follows: (Z) Washington Fish & Oyster Co., Seattle; (Y) Wash. F. & O. Co., Port Williams; (X) King Crab, Inc., Kodiak; (W) Dressel-Collins Fish Co., Seattle; (V) P. E. Harris Co., False Pass; (U) Whiz Fish Products Co., LaConner; (T) Farwest Fisherman, Anacortes; (S) Crown Seafood Sales, Inc., Seattle

cases of canned salmon in 1957, can expect full operation only in the event that the Japanese agree to suspend operations in a Cessation Zone as suggested for 150° of longitude westward from the present Provisional Line of their operations at 175° West Longitude.

Otherwise the run will suffer the depletion of their high seas fishing; and the Department of Interior has declared that such exploitation of the run would force it to impose the severest restrictions upon American fishing in Bristol Bay in an effort to provide the legally-required spawning escapement from the depleted run.

- Of the Western Alaska canned salmon pack of 1957, canneries in that area produced 561,198 full cases of salmon, of which 490,982 cases were Reds.

Fish caught and frozen on Bristol Bay and carried by freezerships elsewhere for canning produced 81,850 cases of salmon, of which 74,898 cases were Reds.

It is the practice of *Pacific Fisherman Yearbook* to include these fish, and others frozen elsewhere in Alaska for canning on Puget Sound, in the canned packs credited to the districts where the fish originated; and not to consider them as an element in the canned salmon production of the district where the canning actually occurred.

In this respect the practice of this journal differs from that of the United States Bureau of Commercial Fisheries, which credits fish to the area in which they are canned, regardless of where they may have originated.

Admittedly, there is good argument for the B.C.F. position; and it must also be admitted that this *Yearbook* credits tuna canned from frozen fish to the area of packing rather than that of origin; and that in the case of Chums imported from British Columbia for canning on Puget Sound the fish are credited to the latter district.

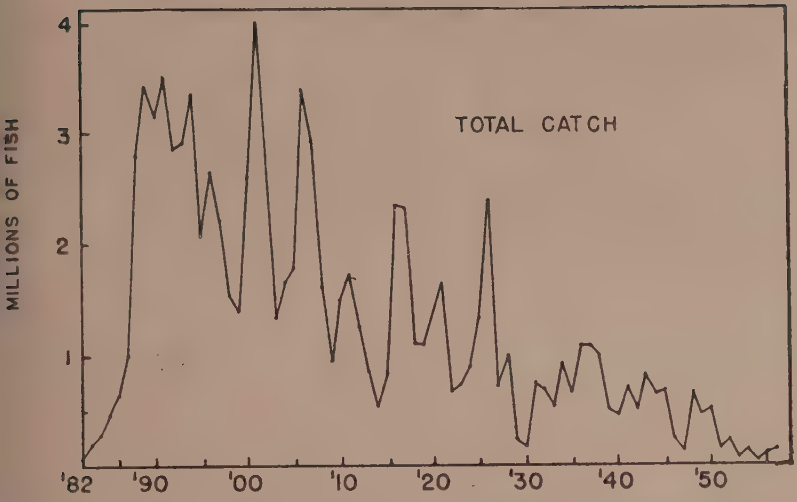
However, in the case of the Alaska freezership operation, taking most of its fish on Bristol Bay and having them canned on Puget Sound, it appears reasonable to include them with the other products of the Alaska fisheries where they originated.

- The Western Alaska pack of 1957 —including the freezership production

Halferty

SEATTLE, U.S

CENTRAL ALASKA



Karluk Red Salmon Catch

—was 643,048 cases, just about 100,000 cases off from the 1956 figure; but substantially better than the very poor years 1955, with only 422,000 cases in the area, and 1954 with 474,000 cases.

Central Alaska Tops Million

- With a pack of 1,003,670 cases, Central Alaska maintained its position in the million-case class, where it has held a place uninterruptedly since 1923. The margin was narrow, however, and the pack for the district was the lowest registered since 1923. The only other under 1.1 million pack was that of 1951.

Of the Central Alaska pack, 13,155 cases were packed on Puget Sound from fish frozen in Alaska by freezerships.

The area's pack composition by species showed Chums topping all with 443,000 cases, Pinks with 334,000, and Reds down to the all-time low figure of 180,000 cases, less than half the production of this species in the 1923 record low year.

Alaska Peninsula and Chignik

- The Peninsula Pink salmon pack hit an all-time low of 30,000 cases in 1957.

Good abundance of Chums, which had a pack of almost 120,000 cases, compensated somewhat for the Pink shortage. Poor production during the summer season kept all canneries and gear in the race for fall fish, the season for which commenced August 19.

The False Pass seiners and traps caught few Red salmon despite remarkably calm weather.

Even though a more liberal fishing time was granted, escapement was good into the Bear and Sandy Rivers. It is felt that a continuous stationary patrol of the closed area at the mouth of Bear River contributed materially to the good escapement.

UNITED STATES CANNED SALMON PACK

YEAR	Red or Sockeye	Pink	Chum or Keta	Med. Red Coho or Silverside	King or Chinook	Steelhead	GRAND TOTAL	YEAR
1916	2,217,259	1,755,433	1,260,131	529,096	579,615	19,013	6,360,547	1916
1917	2,908,995	3,432,573	1,173,040	431,160	597,704	23,937	8,567,409	1917
1918	2,711,251	2,425,500	1,677,416	647,020	589,786	25,170	8,076,143	1918
1919	1,338,401	2,079,775	1,995,446	593,192	664,844	19,899	6,630,347	1919
1920	1,541,286	1,618,103	1,090,103	251,533	586,749	13,659	5,101,705	1920
1921	1,870,396	845,184	288,539	238,595	369,756	10,142	3,622,612	1921
1922	2,181,197	1,659,781	650,079	491,643	313,992	24,983	5,231,675	1922
1923	1,974,495	2,930,985	702,536	415,084	362,660	25,997	6,411,757	1923
1924	1,533,237	2,619,013	1,266,654	418,336	378,218	29,862	6,245,320	1924
1925	1,187,784	2,659,144	1,214,304	477,159	481,071	14,859	6,034,321	1925
1926	2,218,638	3,334,787	1,067,053	429,942	408,136	33,128	7,491,684	1926
1927	1,430,116	1,993,679	656,911	459,209	481,914	31,643	5,053,472	1927
1928	2,010,956	2,791,061	1,302,422	445,496	335,907	16,605	6,902,447	1928
1929	1,819,469	3,298,127	1,115,924	367,847	358,085	24,104	6,983,556	1929
1930	1,232,340	3,154,364	683,451	566,250	390,756	16,932	6,044,093	1930
1931	1,792,111	3,684,092	615,441	285,930	390,563	12,355	6,780,492	1931
1932	2,200,104	2,118,250	1,006,776	257,735	318,770	13,218	5,914,853	1932
1933	2,321,784	2,726,783	727,917	243,055	323,176	18,027	6,360,742	1933
1934	2,876,981	3,825,989	849,721	371,521	322,968	14,901	8,361,990	1934
1935	882,408	3,624,148	893,612	364,625	257,773	14,888	6,037,454	1935
1936	2,553,160	4,590,422	1,249,188	287,224	283,941	19,282	8,983,217	1936
1937	2,168,528	3,947,271	786,397	236,708	369,725	17,568	7,526,197	1937
1938	2,677,723	3,222,559	845,433	294,257	218,989	15,248	7,274,209	1938
1939	2,020,200	2,791,790	668,274	227,143	238,827	25,293	5,971,527	1939
1940	1,040,241	2,910,972	919,368	375,668	269,217	33,436	5,548,902	1940
1941	1,308,740	4,790,573	851,902	440,653	372,624	33,162	7,779,654	1941
1942	1,194,985	2,819,501	1,089,555	406,032	320,531	21,911	5,852,515	1942
1943	2,004,204	2,384,186	895,265	191,135	185,340	16,261	5,676,391	1943
1944	1,618,729	2,087,621	987,382	202,364	203,761	19,222	5,119,079	1944
1945	1,227,162	2,549,848	693,803	239,086	181,367	19,314	4,910,580	1945
1946	1,350,629	2,060,243	694,728	217,004	222,744	17,767	4,563,115	1946
1947	1,911,284	2,363,069	666,497	293,058	356,665	22,091	5,612,664	1947
1948	1,734,091	1,308,689	1,054,637	370,610	338,037	20,362	4,826,426	1948
1949	1,075,427	3,236,317	718,878	277,495	207,868	8,931	5,524,916	1949
1950	1,290,249	1,097,811	1,317,761	352,126	205,981	10,534	4,274,462	1950
1951	936,120	2,001,352	981,524	466,880	244,832	14,862	4,645,570	1951
1952	1,413,670	1,175,054	1,290,667	397,534	159,086	19,011	4,455,022	1952
1953	1,162,614	1,396,388	966,418	207,144	158,437	19,645	3,910,646	1953
1954	1,323,830	1,151,126	1,329,756	215,123	129,933	13,379	4,163,147	1954
1955	749,328	1,682,000	466,353	198,806	176,661	13,737	3,361,885	1955
1956	1,182,554	1,129,346	758,059	188,571	165,957	8,171	3,432,658	1956
1957	952,369	964,621	923,483	196,016	143,408	7,674	3,187,571	1957
10 YR. AVERAGE	1,182,025	1,514,270	980,754	287,031	193,020	13,631	4,178,230	10 YR. AVERAGE

NOTE:- Figures represent full cases of 48-lbs. net. Figures for the last year shown are from Pacific Fisherman's compilation; those for previous years have been revised from official data. "Average" is for the last ten years.

Alaska Salmon Canned Elsewhere

Year	From Western Alaska (cases)				From Central Alaska (cases)			From Southeast Alaska (cases)				Grand Total Full Cases (48 lbs.)	Year
	Red	Chum	Other Species	Total	Pink	Other Species	Total	Pink	Chum	Other Species	Total		
1948*	4,031	535	2,000	(b) 6,566	...	...	...	...	...	...	...	6,566	1948*
1949	10,976	(a) 750	2,536	14,262	....	...	...	...	...	...	...	14,262	1949*
1950	12,544	2,905	...	15,449	...	...	...	1,335	597	34	1,966	17,415	1950
1951	44,368	1,665	3,814	49,847	805	150	955	1,652	4,257	202	6,111	56,913	1951
1952	100,350	2,397	1,071	103,818	2,909	...	2,909	4	7,179	462	7 645	114,372	1952
1953	51,133	1,576	11	52,720	10,971	883	11,854	223	7,475	83	7,781	72,355	1953
1954	67,266	2,979	1,637	71,882	9,296	2,930	12,226	4,142	13,031	4,525	21,698	105,806	1954
1955	39,915	3,160	48	43,123	23,461	2,107	25,568	128	23	7,142	7,293	75,984	1955
1956	61,581	2,535	1,788	65,904	6,205	19,117	25,322	2,169	4,408	7,461	14,038	105,264	1956
1957	65,392	1,110	1,907	68,409	2,384	10,771	13,155	228	12,777	3,084	16,089	97,653	1957
AVERAGE	45,756	1,961	1,481	49,199	5,603	3,596	9,199	988	4,975	2,299	8,262	66,659	Aver

* Data prior to 1950 cannot be accurately segregated. Some fish were frozen in Central Alaska and Southeastern Alaska in the years 1948 and 1949, but data available are not felt to be sufficiently accurate for inclusion in this table. Accordingly, reports for these two years are concerned with Bristal Bay only.

Some discrepancy arises from the fact that other tables, for current years include some fish canned in other parts of Alaska than the areas where caught. Salmon canned anywhere in Alaska is excluded from this table as far as possible. (a) Estimated. (b) "Reefer King" pack only.

NORTH AMERICAN CANNED SALMON PACK

Year	Red, Sockeye or Blueback	Pink	Chum or Keta	Medium Red Coho or Silverside	King or Chinook	Steelhead Trout	Total Cases	Yea
1898	1,594,162	109,399	51,530	282,589	398,564	26,277	2,462,521	1898
1899	2,153,388	401,892	61,932	261,071	334,974	11,994	3,225,251	1899
1900	2,046,908	232,022	155,208	208,026	338,493	20,597	3,001,254	1900
1901	3,801,730	585,017	86,230	126,535	455,395	20,000	5,074,907	1901
1902	2,702,045	549,602	313,603	227,031	379,641	8,593	4,180,515	1902
1903	2,231,555	564,507	61,232	330,319	403,836	7,251	3,598,700	1903
1904	1,950,949	299,333	168,235	168,235	444,472	9,868	3,041,092	1904
1905	3,488,322	253,559	138,642	269,806	443,794	9,822	4,603,945	1905
1906	2,122,204	416,602	450,151	397,346	424,974	6,500	3,817,777	1906
1907	1,707,813	,114,100	272,135	397,786	354,209	6,604	3,852,647	1907
1908	2,186,325	726,656	303,837	386,745	379,171	11,863	3,994,597	1908
1909	3,671,555	882,410	218,987	373,567	262,554	17,382	5,426,455	1909
1910	2,274,780	589,043	555,908	521,966	372,901	5,576	4,320,174	1910
1911	1,869,927	2,373,595	592,790	676,141	627,714	8,618	6,104,887	1911
1912	2,544,435	1,556,128	808,630	621,817	426,338	7,198	5,956,953	1912
1913	4,643,425	2,392,166	432,812	300,033	285,472	9,539	8,063,447	1913
1914	3,121,964	1,222,013	1,200,433	579,980	509,100	11,292	6,644,782	1914
1915	2,492,865	2,825,570	1,107,707	551,821	641,979	29,650	7,639,592	1915
1916	2,432,048	2,036,077	1,500,332	715,815	646,341	24,999	7,355,612	1916
1917	3,248,843	3,929,332	1,648,313	588,749	673,980	35,677	10,124,894	1917
1918	2,987,710	2,953,245	2,175,031	838,088	697,140	41,086	9,692,300	1918
1919	1,707,846	2,426,414	2,367,481	793,175	704,195	24,392	8,023,503	1919
1920	1,892,691	2,138,959	1,175,001	361,566	705,050	16,054	6,289,321	1920
1921	2,034,310	1,038,090	359,947	362,943	419,508	11,362	4,226,160	1921
1922	2,480,811	2,241,760	908,283	510,919	353,588	26,640	6,522,001	1922
1923	2,309,142	3,371,917	1,120,591	534,225	389,802	27,757	7,753,434	1923
1924	1,902,832	3,295,739	1,835,251	542,682	406,096	31,270	7,990,543	1924
1925	1,581,792	3,111,320	1,803,371	667,817	550,071	17,248	7,731,610	1925
1926	2,550,771	4,101,422	1,762,134	607,778	485,783	86,233	9,544,126	1926
1927	1,738,054	2,241,304	1,217,338	642,522	538,574	33,377	6,411,169	1927
1928	2,214,498	3,583,433	2,165,652	602,203	354,798	17,492	8,938,076	1928
1929	2,100,787	3,775,764	1,541,213	564,826	375,497	24,821	8,382,908	1929
1930	1,710,018	4,266,301	1,085,351	758,451	427,282	18,509	8,265,912	1930
1931	2,084,385	3,890,755	671,574	388,140	418,483	13,679	7,467,016	1931
1932	2,484,459	2,341,966	1,313,537	446,706	394,830	14,386	6,995,884	1932
1933	2,579,891	3,259,341	1,021,547	402,107	343,442	19,486	7,625,814	1933
1934	3,354,863	4,261,262	1,362,905	596,951	352,752	16,183	9,944,916	1934
1935	1,232,852	4,139,114	1,303,216	596,117	279,693	15,484	7,566,476	1935
1936	2,968,184	5,181,954	1,846,675	533,285	313,795	20,350	10,864,243	1936
1937	2,494,302	4,532,487	1,233,999	369,916	385,986	18,412	9,035,372	1937
1938	3,125,176	3,623,435	1,387,245	595,380	234,520	16,283	8,982,039	1938
1939	2,280,088	3,412,392	1,054,858	472,239	254,930	26,090	7,500,597	1939
1940	1,402,999	3,124,292	1,553,389	592,395	286,485	34,443	6,994,003	1940
1941	1,763,852	5,218,427	1,770,225	831,279	422,989	36,597	10,043,369	1941
1942	1,860,044	3,088,724	1,723,193	616,687	343,369	26,507	7,658,524	1942
1943	2,169,091	2,913,760	1,258,239	377,160	196,000	19,357	6,933,608	1943
1944	1,869,365	2,478,750	1,239,548	383,040	223,088	23,143	6,216,934	1944
1945	1,556,200	3,374,192	1,041,387	457,680	194,056	22,125	6,645,640	1945
1946	1,893,469	2,176,817	1,267,478	316,968	230,811	21,880	5,907,423	1946
1947	2,197,569	2,962,281	1,127,496	438,087	366,620	25,325	7,117,378	1947
1948	1,994,733	1,630,411	1,551,190	577,726	354,475	26,027	6,134,562	1948
1949	1,335,248	3,946,309	946,615	492,871	229,031	11,305	6,961,380	1949
1950	1,698,290	1,544,327	1,816,745	468,768	215,114	13,777	5,757,022	195
1951	1,364,419	2,737,445	1,443,330	779,725	258,530	18,517	6,601,966	1951
1952	1,862,844	1,850,890	1,375,214	461,629	168,150	22,763	5,741,490	1952
1953	1,672,714	2,189,770	1,359,134	317,314	170,614	22,369	5,731,915	195
1954	2,004,548	1,486,676	1,910,330	343,203	144,013	17,113	5,905,883	195
1955	994,186	2,505,415	591,190	394,529	194,414	15,327	4,695,061	195
1956	1,502,650	1,492,979	961,769	406,486	177,628	9,425	4,550,937	1956
1957	1,179,805	1,715,669	1,168,507	401,889	155,979	8,989	4,630,838	1957
10 YR. Average	1,560,944	2,109,989	1,312,402	464,414	206,795	16,561	5,671,105	10 YR. Average

NOTE:- Figures represent full cases of 48 lbs. net. "Average" is for the last ten years

Figures for the last year shown are from PACIFIC FISHERMAN's compilation; those for previous years are official totals.

Notes on the Central Alaska Canned Salmon Table

NOTES: Many of the packs listed were made, partly or wholly, in plants of other companies, through joint-operating or custom-canning arrangements, most of which were as follows: (A) in P.A.F. Alitak. (B) in P.A.F. Chignik. (C) Snug Harbor Pkg. Co. plant. (D) in San Juan F. & P. Co. plant. (E) in Harris plant. (F) Share from joint in Ouzinkie & Parks Uyak. (G) Partly in New Eng. Orca. (H) in P.A.F. King Cove. (I) in A.P.A. plant. (J) in A.Y.R plant (K) Includes share from joint in Halferty & New England plants.

ONE POUND FLATS are included with Talls, as follows: (1) 1,308 Reds & 117 Kings. (2) 1,930 Reds & 166 Kings.

FOUR POUND cans are included with Talls, as follows: (4) All No. 4's. (5) Includes 6 cs. Reds, 4 Pinks, 26 Chums & 2,043 Cohoes. (6) Includes 25 Chums & 2,053 Cohoes. (7) Packed in 6¾-oz. cans, reduced to 48 lbs. to case. (8) Does not include fish canned for Freezership "Arctic Maid." (9) Includes Smoked Salmon, 47 cases, Reds, Cohoes & Kings. (10) Sand Point, formerly Alaska Pacific Salmon Co.

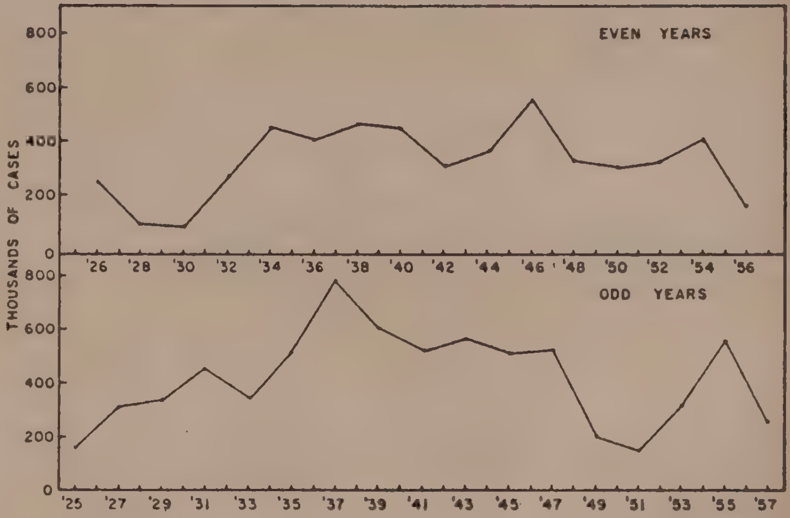
*"SALMON SHIPPED OUT" includes NO fish canned in Central Alaska, but consists of Central Alaska fish canned on Puget Sound for Freezers' account, in the following plants: (Z) Washington Fish & Oyster Co., Seattle; (Y) Whiz Fish Products Co., LaConner; (X) Farwest Fishermen, Inc., Anacortes.

The 1957 Chignik Red salmon run, though not as good as 1956, does not compare unfavorably with the preceding nine-year average.

Fishery management relied successfully on an extended closed area at the mouth of the Chignik River and a relatively fixed weekly schedule of 12-hour fishing periods to achieve its objective of obtaining a more uniform escapement of spawning stock throughout the entire run. The escapement percentage of the total run, especially during the heavy fishing period from mid-June to mid-July was satisfactory. Substantial escapements from each segment of the run should contribute materially to increased and steadier future production.

Rehabilitation of the currently non-reproductive Pink and Chum salmon streams in the Chignik area remains a serious problem. Correction requires intensification of enforcement.

Kodiak Pink Salmon Packs



Kodiak Island Area

- The Kodiak Pink salmon runs of 1957 were less than expected in light of the favorable escapement during 1955. In spite of the unusually large amount of gear attracted by prospects of a good run, the pack was only 233,000 cases. Survival of the 1955 escapement must have been poor because escapement distribution appeared to be excellent in many streams in that year.

Although a drop in Pink escapement occurred during 1957, volume did not appear to be dangerously low in the larger streams, and distribution was generally good. The small streams were poorly seeded, however, due in part to the universal scarcity of Pink salmon and also to the unprecedented dry season which retarded, or in some cases prevented, escapement. Both 1956 and 1957 have been characterized by weakness in the late runs, a situation which must be corrected in future regulation.

Combined weir counts for the Alitak District Red salmon lakes dropped to 78,947, the lowest on record. Nevertheless, this escapement represents 71% of the Red salmon run in that district, thus assuring relatively even distribution of a minimal seeding.

The Red salmon count through Red River weir during 1957 was 161,192. This is a three-fold gain over the parent cycle of 1952.

The Karluk Lake run for 1957, although low, was higher than in 1956. The escapement of 220,675 Red salmon was well distributed over the season as a result of the policy designed to bolster the weak mid-portion of the run.

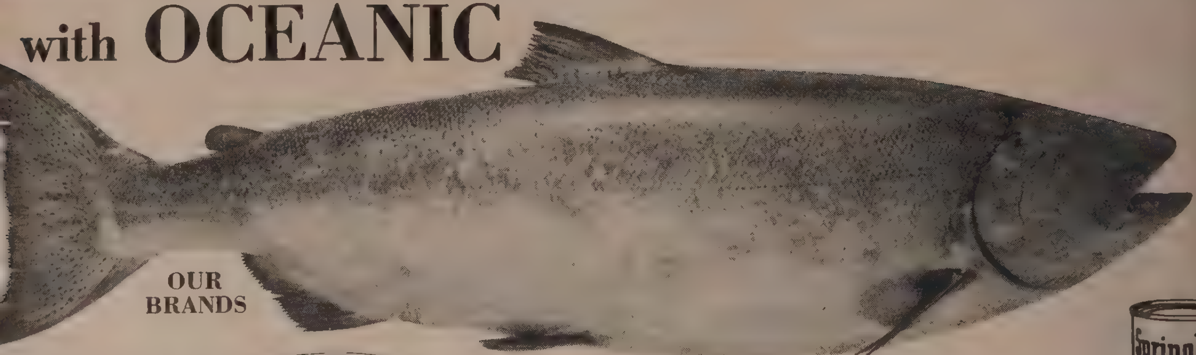
World's Foremost Fishing Countries

(Data given in thousands of metric tons - 2,200 lbs.)

Countries in order of importance	1938	1948	1953	1954	1955	1956
JAPAN	3,562.0	2,431.0	4,522.0	4,545.0	4,913.0	4,763.0
UNITED STATES	2,253.0	2,410.0	2,438.0	2,706.0	2,739.0	2,936.0
U.S.S.R.	1,523.0	1,486.0	1,983.0	2,258.0	2,498.0	2,617.0
CHINA (Mainland)	1,500.0	440.0	1,890.0	2,290.0	2,520.0	2,550.0
NORWAY	1,153.0	1,504.0	1,557.0	2,068.0	1,813.0	2,129.0
UNITED KINGDOM	1,198.0	1,206.0	1,122.0	1,070.0	1,100.0	1,050.0
CANADA	837.0	1,053.0	925.0	1,026.0	954.0	1,077.0
INDIA	...		819.0	829.0	839.0	1,012.0

Source: Food and Agriculture Organization, U.N.

The Five Salmon Go to Marke
with OCEANIC



OUR BRANDS

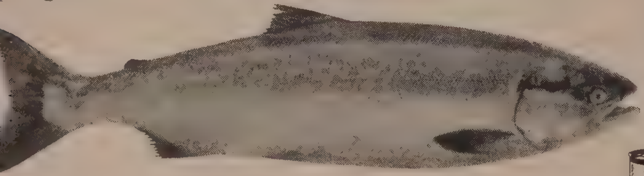
CHINOOK

GILLNETTERS BEST
SALMON

Springki
Red Chinook
SALMO

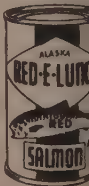
ill Netters Best
o-Operators Best
pringkist

Called "King" in many areas, the big salmon above well deserves the name. This salmon is highly favored, although he furnishes only a limited part of the canned salmon pack. Weight averages about 25 pounds, but Chinooks above 100 pounds have been taken.



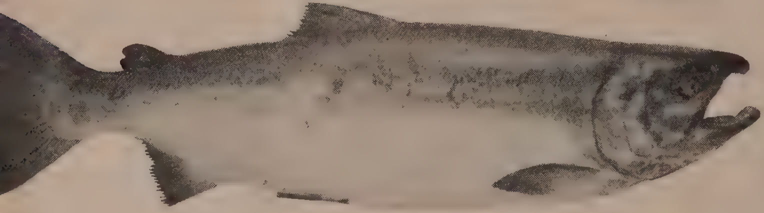
RED

Red-E-Lunch
Hummer
Coatarms


ALASKA
RED-E-LUN
RED
SALMON

"Sockeye" in some areas, this trim salmon averages 7 pounds weight. Yielding the Red salmon pack, it is one of the world's most important fishes.

COATARMS
SALMON

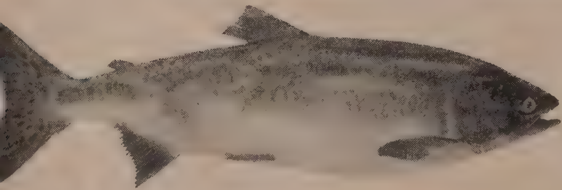


SILVER

Redman
Salad

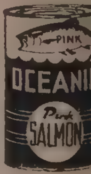
REDMA
SALMO

Commonly known as "Coho" and "Medium Red" as well as "Silver," this species averages about 8 pounds in weight. The flesh has a strong red color.

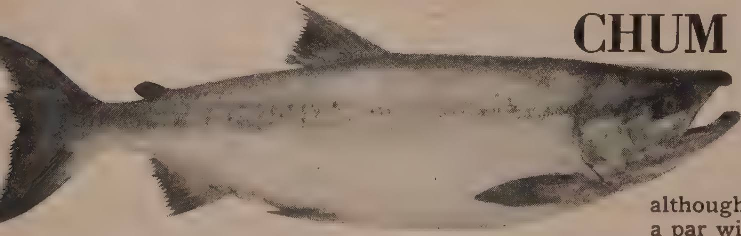


PINK

Oceanic
Down South
Seafed
Seafarer


PINK
OCEANI
Pink
SALMON

Although the smallest of the five salmon, the Pink makes the largest contribution of all to the canned salmon pack. The species' life cycle is two years.



CHUM

Tomah
Overland
Ben Hur
Western Star
Tennis

TOMA
ALASKA
SALMO

The pale color of its flesh keeps the Chum salmon cheap, as consumer preference for color in canned salmon has powerful leverage. Although pale, although cheap, this salmon ranks on a par with the others in nutritive value.

OCEANIC SALES COMPANY

33rd FLOOR SMITH TOWER SEATTLE 4, WASHINGTON

Exclusive Sales Agents For:

UNION FISHERMEN'S CO-OPERATIVE PACKING COMPANY'S

Complete Line of Columbia River Fisheries Products

1957 - CENTRAL ALASKA CANNED SALMON PACK - 1957

	COMPANY	CANNERY LOCATION	RED OR SOCKEYE			PINK			CHUM			COHO			KING OR CHINOOK			GRAND TOTAL (full cases)	
			1 & 4 lb. Talls & Flats	½ -lb. Flats (8 doz.)	TOTAL	1 & 4 lb. Talls & Flats	½ -lb. Flats (8 doz.)	TOTAL	1 & 4 lb. Talls & Flats	½ -lb. Flats (8 doz.)	TOTAL	1 & 4 lb. Talls & Flats	½ -lb. Flats (8 doz.)	TOTAL	1 & 4 lb. Talls & Flats	½ -lb. Flats (8 doz.)	TOTAL		
	CANNED IN CENTRAL ALASKA																		
1	Alaska Packers Association	Chignik	7,220	7,677	14,897	6,566	..	6,566	7,769	..	7,769	211	...	211	38	..	38	29,481	1
		Alitak (a)	..	364	364	5,619	..	5,619	635	..	635	9	...	9	...	...	..	6,627	1
		Karluk	618	2,114	2,732	28,407	..	28,407	8,813	..	8,813	246	...	246	62	...	62	40,260	1
2	Alaska Year Round Canneries	Seldovia	1,080	2,588	3,668	628	1,306	1,934	12,060	69	12,129	691	293	984	387	34	421	19,136	2
3	Berman Packing Co.	Ninilchik	81	1,577	1,658	21	54	75	3,083	2,110	5,193	981	625	1,606	16	199	215	8,747	3
4	Chignik Fisheries Co.	Chignik (b)	12,785	...	12,785	7,919	..	7,919	13,433	..	13,433	211	...	211	37	...	37	34,385	4
5	Cook Inlet Packing Co.	Snug Harbor (c)	(1) 1,385	...	1,385	46	..	46	2	..	2	251	...	251	(1) 266	...	266	1,950	5
6	Copper River Co-Op Co., Inc.	Copper R. Flats & Eshamy	..	7,346	7,346	...	1,470	1,470	...	1,632	1,632	(4) 410	80	490	...	394	394	11,332	6
7	Copper River Packing Co.	Port San Juan (d)	341	...	341	3,440	..	3,440	5,089	..	5,089	268	...	268	48	...	48	9,186	7
8	Crystal Falls Fish Co.	Crystal Falls (Cordova)	1,085	...	1,085	...	..	...	...	..	...	412	...	412	70	...	70	1,567	8
9	Ellamar Packing Co.	Port San Juan (d)	60	...	60	655	..	655	905	..	905	47	...	47	8	...	8	1,675	9
10	Emard Packing Co.	Anchorage	4,026	(7) 4,849	8,875	51	..	51	9,095	..	9,095	2,472	(7) 1,022	3,494	242	6,003	6,245	27,760	10
11	Fidalgo Island Packing Co.	Port Graham	5,360	1,175	6,535	1,494	2,559	4,053	16,506	125	16,631	218	46	264	850	...	850	28,333	11
12	Fisheries Products Co.	Valdez	18	...	18	621	..	621	5,261	..	5,261	..	...	...	...	...	...	5,900	12
13	Global Fishing Co.	False Pass (e)	156	...	156	4,902	..	4,902	4,066	..	4,066	79	...	79	...	...	...	9,203	13
14	Halferty Canneries, Inc.	Kodiak (f)	690	...	690	16,160	..	16,160	9,968	..	9,968	174	...	174	8	...	...	27,000	14
		Cordova (g)	(5) 783	12,684	13,467	(5) 4,502	..	4,502	(5) 14,319	..	14,319	(5) 2,723	...	2,723	...	400	400	35,411	14
15	P. E. Harris Co., Inc.	False Pass	5,515	...	5,515	3,372	..	3,372	40,996	..	40,996	661	...	661	152	...	152	50,696	15
16	Intercoastal Packing Co.	Uganik Bay (d)	588	378	966	9,998	1,272	11,270	3,252	482	3,734	270	19	289	...	...	...	16,259	16
17	Island Seafoods, Inc.	Kodiak	..	40	40	...	3,779	3,779	...	1,424	1,424	..	...	...	...	...	...	5,243	17
18	Kayler-Dahl Fish Co. (i)	Cordova	..	3,191	3,191	...	906	906	(4) 1,085	4,509	5,594	(4) 1,116	1,045	2,161	...	410	410	12,262	18
19	Kakiak Fisheries Co.	Port Bailey	3,745	...	3,745	45,063	..	45,063	17,919	..	17,919	778	...	778	28	...	28	67,533	19
20	Kayak Packing Co.	Copper Rr. Flats, etc. (l.)	1,232	...	1,232	1,509	...	1,509	2,823	..	2,823	421	...	421	76	...	76	6,061	20
21	Kenai Packers	Kenai	4,435	6,943	11,378	35	..	35	21,312	..	21,312	227	55	282	2,483	...	2,483	35,490	21
22	King Crab, Inc.	Kodiak	(4) 174	...	174	(4) 7,531	..	7,531	(4) 11,753	..	11,753	(4) 147	...	147	...	...	...	(8) 19,605	22
23	Libby, McNeill & Libby	Moser Bay & Kenai	(4) 3,841	7,469	11,310	16,467	561	17,028	19,587	..	19,587	808	...	808	1,364	...	1,364	50,097	23
24	Malaspina Fisheries Co.	Ouzinkie & Uyak (f)	205	...	205	4,795	..	4,795	2,957	..	2,957	52	...	52	3	...	3	8,012	24
25	New England Fish Co.	Orca & Sand Point (h)(10)	1,252	15,057	16,309	14,779	..	14,779	(6) 28,520	..	28,520	(6) 3,665	...	3,665	271	406	677	63,950	25
26	Ouzinkie Packing Corp.	Ouzinkie (f)	689	..	689	16,160	..	16,160	9,969	..	9,969	174	...	174	8	...	8	27,000	26
27	Pacific American Fisheries, Inc.	King Cove, Squaw Harbor, Chignik, Alitak, Larsen Bay (i) & Snug Harbor (c)	(2) 8,310	4,742	13,052	34,878	5,199	40,077	59,046	2,203	61,249	2,124	...	2,124	(2) 444	6	450	116,952	27
28	Parks Canning Co., Inc.	Uyak Bay (f)	690	...	690	16,161	..	16,161	9,967	..	9,967	174	...	174	8	...	8	27,000	28
29	Peninsula Packers	False Pass (e)	925	...	925	187	..	187	3,033	..	3,033	..	...	...	16	...	16	4,161	29
30	Port Ashton Packing Corp.	Port San Juan (d)	253	...	253	2,567	..	2,567	3,794	..	3,794	200	...	200	36	...	36	6,850	30
31	Port Chatham Packing Co.	Portlock	25	1,833	1,858	249	1,250	1,499	1,630	5,172	6,802	4	18	22	...	...	...	10,181	31
32	Resurrection Bay Company	Seward (j)	182	..	182	769	..	769	1,107	..	1.107	..	...	...	...	...	...	2,058	32
33	San Juan Fishing & Packing Co.	Port San Juan	390	..	390	3,933	..	3,933	5,822	..	5,822	306	...	306	55	...	55	10,506	33
		Uganik Bay	797	487	1,284	18,738	2,159	20,897	5,170	830	6,000	364	26	390	...	...	...	28,571	33
34	Seldovia Bay Packing Co.	Seldovia	578	6,337	6,915	8,014	850	8,864	25,382	1,976	27,358	159	565	724	24	333	357	44,218	34
35	Shelter Cove Packing Co.	Cordova	..	55	55	...	..	...	...	..	...	..	...	...	...	4	4	59	35
36	Simon Seafoods	Kasilof	20	52	72	...	..	...	...	..	...	..	...	...	...	...	...	72	36
37	Snug Harbor Packing Co.	Snug Harbor	(2) 836	...	2,836	417	..	417	5,276	..	5,276	947	...	947	(2) 264	...	264	9,740	37
38	Tidewater Packing Co.	Anchorage	28	50	78	...	..	...	42	4	46	54	9	63	10	28	38	(9) 225	38
39	Washington Fish & Oyster Co.	Port Williams	539	...	539	15,830	..	15,830	7,672.	..	7,672	509	...	509	...	...	...	24,550	39
40	West Point Canning Co.	Uganik Bay	..	1,563	1,563	...	491	491	...	351	351	..	5	5	...	...	...	2,410	40
41	Welco Fisheries	S. Peninsula (h)	(5) 803	12,871	13,674	(5) 9	..	9	2,030	..	2,030	1	...	1	...	...	...	2,040	41
42	Western Fisheries Co.	Cordova (k)	(5) 803	12,871	13,674	(5) 5,432	2,434	7,866	(5) 15,612	247	15,859	(5) 2,958	...	2,958	...	404	404	40,761	42
	TOTAL CENTRAL ALASKA CANNERIES		73,740	101,442	175,182	307,924	24,290	332,214	416,760	21,134	437,894	25,522	3,808	29,330	7,274	8,621	15,895	990,515	
	OPERATOR	VESSEL or SOURCE	CENTRAL ALASKA SALMON SHIPPED OUT AND CANNED ELSEWHERE																
1	Alaska Reefer Fisheries	"Alaska Reefer" (z)	..	...	...	645	..	645	...	..	..	..	...	..	...	...	..	645	1
2	Arctic Maid Fisheries	"Arctic Maid" (z)	..	...	...	...	..	...	2,282	..	2,282	..	..	..	...	...	..	2,282	2
3	North Star Fisheries	"North Star" (y)	..	...	...	1,674	..	1,674	...	..	..	..	..	..	...	...	..	1,674	3
4	Rainier-Pacific Fisheries	"Pacific Reefer" (y)	532	...	532	61	4	65	1,153	..	1,153	..	...	..	...	...	..	1,750	4
5	Whitney & Company	"Reefer King" (x)	2,847	...	2,847	..	..	...	...	..	.	..	...	..	...	...	..	2,847	5
6	Welco Fisheries	"St. Mark" (z)	1,887	...	1,887	...	..	...	2,070	..	2,070	..	...	..	...	...	..	3,957	6
	TOTAL CENTRAL ALASKA SALMON CANNED ELSEWHERE		5,266	...	5,266	2,380	4	2,384	5,505	..	5,505	..	...	..	...	...	..	13,155	
	GRAND TOTAL		79,006	101,442	180,448	310,304	24,294	334,598	422,265	21,134	443,399	25,522	3,808	29,330	7,274	8,621	15,895	1,003,670	

NOTE—Footnotes pertinent to this table will be found at the top of page 93.

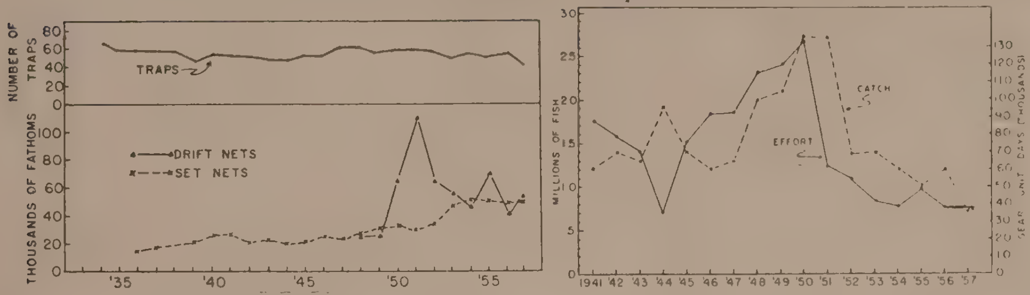
Fishermen and Fishing Gear Registered in Alaska in 1957

District	Registered Fishermen			Registered Units of Gear												
	Resident	Nonresident	Total	Troll	Long line	Drift Nets	Set Nets	Beach Seines	Purse Seines	Herring Seines	Herring Pound	Trawlers	Clam Diggers	Crab	Other	Traps
Southeastern	4,014	937	1/ 4,951	1,138	40	King 208 Red 276 Coho 294	King 21 Red 25 Coho 25	10	431	9	1	10		7	2	123
Yakutat	160	25	185				King 52 Red 180 Coho 185									
Cordova	473	256	729	2		King 29 Red 588 Coho 403	Red 30 Coho 11	165					146	9		11
Cook Inlet	870	68	938		17	King 332 Red 329 Coho 84	King 444 Red 483 Coho 147	85					1	King Cr. 4 58		45
Kodiak	645	701	1,346			Red 12	King 1 Red 104 Coho 1	34	410	6			57	King Cr. 9 50		22
Chignik	152	70	222				Red 2	60	61							
Peninsula	239	354	593			King 62 Red 98 Coho 62	King 3 Red 57 Coho 3	23	118							20
Bristol Bay	1,448	671	2,119			King 923 Red 1354 Coho 978	King 43 Red 256 Coho 157									
Yukon	170		170				King 144								Fish Wheel 5	
TOTAL All Alaska	8,171	3,082	11,253	1,140	57	King 1554 Red 2657 Coho 1821	King 708 Red 1137 Coho 529	377	1,020	15	1	10	204	King Cr. 13 124	7	221

1/ Includes 1,125 resident trollers and 155 nonresident trollers; also includes 452 resident sport fishermen and 22 nonresident sport fishermen.

SALMON
CENTRAL ALASKA

Cook Inlet Red Salmon Operations



gear operated 1932-1957

catch and fishing effort

Cook Inlet

- Cook Inlet Red salmon production fell to an all-time low during 1957, probably reflecting damage wrought by the vast increase in gear and catch during the parent cycle years. The drift net fleet increased slightly while shore gear decreased. Thus, area licensing and the gear-time table succeeded in holding fishing effort to the 1956 level but did not bring about the decrease necessary to achieve adequate conservation. Escapements were light to the major spawning systems and extremely poor in the minor systems. Distribution was uneven.

Pink salmon runs were poor in this off-cycle year and correspondingly light escapements occurred. Chum runs reached unprecedented strength resulting in a record pack of 122,145 cases. Escapement of the latter species was considered good, except to streams of the Outer District where streamguard protection was inadequate to control illegal fishing activity.

The King salmon pack of 12,500 cases was about half of normal. It is likely that the run came in earlier than usual. Opening season catches were made far inside Cook Inlet and dropped off sharply after a few days.

Research activities in the Cook Inlet District were concentrated on determining the migratory routes, time of Red salmon runs, and on devising methods of counting the escapement of this species in the turbid glacial rivers that are typical of this area.

Prince William Sound And Copper River

- Prince William Sound reopened in 1957 after a complete closure of the parent Pink salmon year in 1955. The Pink run was very poor throughout the season, producing a pack of 35,000 cases. Individual fish were of fair size, averaging 18 to the case. The largest portion of the Pink pack was obtained from the eastern part of the district. Escapement was about 17% of the parent year, and only a few streams received an adequate number of spawners.

Chum production of 75,000 cases accounted for 68% of the district's total pack. Escapement was excellent and well above that of past years for this species. Many streams which normally have only Pinks had good numbers of Chums. A surplus of spawners provided a fall fishery in Port Fidalgo, and 158,000 good quality Chum salmon were taken in four days during the first week of September. There was a relatively good run and catch of Eshamy reds. Satisfactory escapement did not occur until late in the season when fresh rains after a long dry period enabled schooled Sockeyes to ascend to the lake.

- In the spring Copper River escapement and catch were normal. Observations indicated better than average escapement in the upper tributaries but in the lower streams it was only fair. The condition of the run of summer Reds was also average and a fair escapement was apparent. Throughout the season good weather contributed to the success of the catches and the resulting pack of 49,000 cases was slightly under the annual average of 56,000. The run, pack, and escapement of both Cohos and Kings were about half normal.

- Relations between the various elements of the industry, and between the industry and the Alaska fisheries administration of the Bureau of Commercial Fisheries, give greater evidence of harmony than in many past years.

No sweeping changes in regulations are currently anticipated in this region.

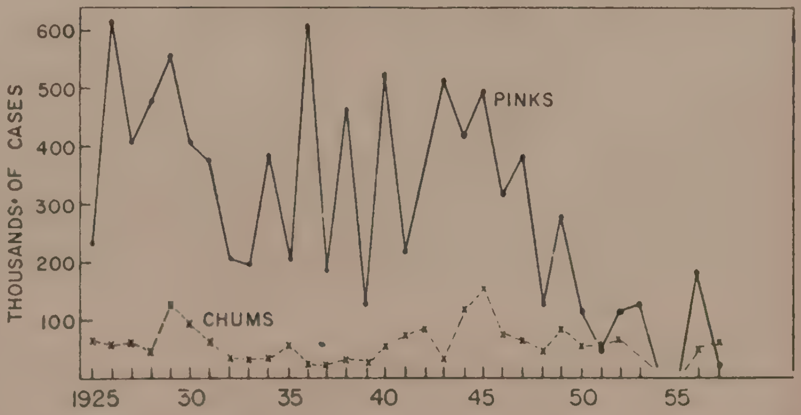
Agreement that escapement should be increased and stabilized is general in the industry, and the Service is concentrating on this phase of biological research. Moreover, earnest effort is being made to cope with the problems arising from sport fishing and abuse of the privilege of personal use fishing by the resident population.

The Cook Inlet fishery in recent years has undergone a progressive diversification through production of mild cured salmon, freezing and canning of King crab, and currently is giving attention to the economic use of the shrimp resource.

While present and prospective new activities are not directly related to salmon canning, they do offer employment for men, gear and plants, thus providing substantial gains in the direction of the long-sought year-round operating schedule with its lowered costs and longer period of earnings.

Industrial shrimping may be anticipated in lower Cook Inlet in 1958.

Prince William Sound Salmon Packs



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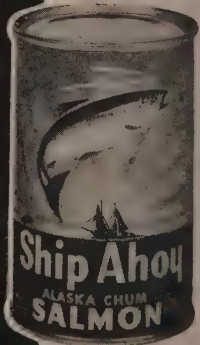

Ship Ahoy
ALASKA CHUM
SALMON

CENTRAL ALASKA CANNED SALMON PACKS

ALASKA PENINSULA, SOUTH SIDE (Cases)							CHIGNIK (Cases)					
Reds	Pinks	Chums	Cohoes	Kings	TOTAL	YEAR	Reds	Pinks	Chums	Cohoes	Kings	TOTAL
74,412	266,144	175,340	11,297	3,741	530,934	1935	60,808	19,504	17,027	1,611	127	99,077
76,548	512,740	199,222	27,226	3,678	1,019,414	1936	100,499	35,917	10,278	4,643	108	151,455
92,639	451,139	117,147	6,836	2,262	670,023	1937	52,727	57,620	10,193	1,626	154	122,320
57,439	367,827	128,574	21,650	1,655	577,145	1938	35,117	12,071	6,792	2,254	148	56,412
19,046	292,203	120,901	9,835	4,483	576,468	1939	142,770	13,744	6,874	728	377	164,493
38,690	356,969	209,749	18,063	3,330	676,801	1940	27,772	4,083	2,349	20	...	34,224
97,695	233,438	163,058	17,298	3,008	514,497	1941	59,373	16,373	15,345	2,322	316	93,729
56,886	291,392	117,532	10,437	843	477,090	1942	56,977	22,962	11,853	1,093	378	93,263
77,000	167,024	70,727	6,657	1,934	423,342	1943	110,086	4,265	4,638	1,924	290	121,203
40,585	123,988	82,560	21,108	819	269,060	1944	47,448	29,283	6,221	1,223	442	84,617
58,984	140,319	73,752	9,923	1,765	284,743	1945	18,666	18,381	11,582	638	222	49,489
50,808	89,164	88,544	12,122	688	241,326	1946	70,817	39,544	22,049	695	305	133,410
83,407	115,916	81,921	4,343	456	286,043	1947	146,788	23,640	5,417	512	111	176,468
23,916	66,743	82,494	2,689	151	175,993	1948	33,574	47,393	31,348	79	79	112,473
47,751	70,866	39,863	1,526	723	160,729	1949	54,146	3,976	11,210	512	129	69,973
35,595	88,452	49,703	5,315	803	279,868	1950	31,644	28,737	8,885	1,135	127	70,528
15,344	116,730	43,007	3,440	183	178,704	1951	25,857	18,576	16,135	719	231	61,518
64,685	38,317	110,249	4,106	182	217,539	1952	14,852	23,113	49,359	94	20	87,438
42,477	131,958	138,117	3,364	624	416,540	1953	37,758	32,186	46,738	88	127	116,897
45,719	64,847	112,598	2,155	561	225,880	1954	11,078	29,000	38,046	93	45	78,262
45,318	76,639	54,263	1,638	541	178,399	1955	31,070	29,484	25,753	2	114	86,423
72,518	72,237	136,678	2,498	659	284,590	1956	64,071	21,149	30,934	698	40	116,892
22,676	30,168	117,452	2,301	653	173,250	1957	28,248	14,529	21,746	422	137	65,082
61,600	75,696	88,442	2,903	508	229,149	Aver.	33,230	24,814	28,015	384	105	86,549

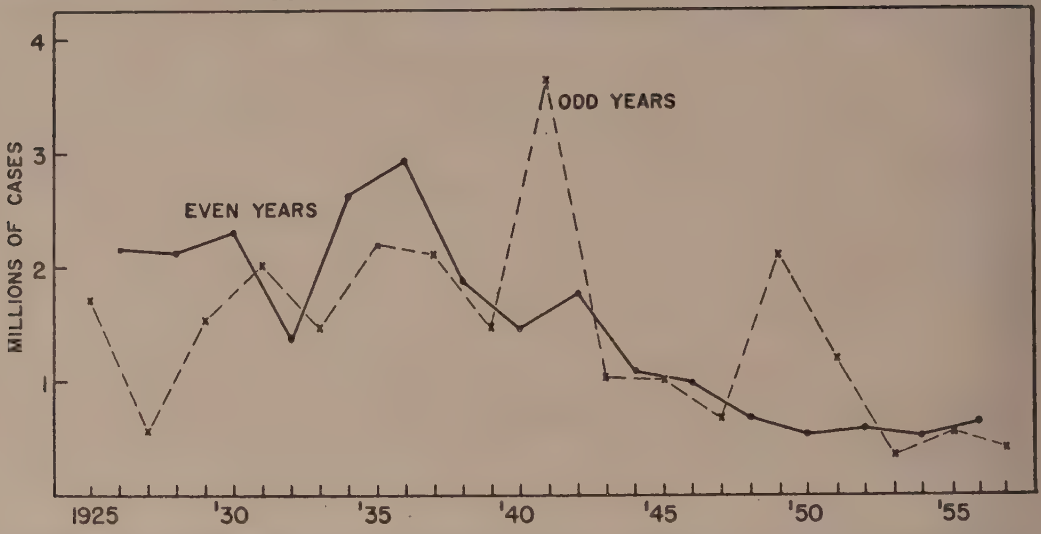
KODIAK AREA (Cases)							COOK INLET (Cases)					
Reds	Pinks	Chums	Cohoes	Kings	TOTAL	YEAR	Reds	Pinks	Chums	Cohoes	Kings	TOTAL
19,720	534,083	42,130	6,753	350	703,036	1935	104,694	22,506	14,400	14,977	18,863	175,440
02,983	394,025	39,248	17,548	620	654,424	1936	188,063	51,350	23,780	31,345	19,723	314,261
20,674	769,055	29,353	14,179	357	933,618	1937	109,471	21,528	12,976	14,005	24,674	182,654
42,112	450,098	69,792	14,716	316	677,034	1938	170,725	54,894	16,260	32,745	16,060	290,684
15,604	603,492	62,185	9,442	651	791,374	1939	183,304	15,570	20,726	13,076	16,554	249,230
93,751	443,154	60,332	14,246	313	611,796	1940	129,952	122,437	26,695	46,015	15,995	341,093
21,725	508,306	57,368	22,854	638	710,891	1941	90,885	38,235	24,706	31,105	27,448	212,379
83,340	313,711	76,563	10,751	363	484,728	1942	98,418	55,722	40,110	61,734	28,617	284,604
29,105	555,209	41,766	5,682	308	730,070	1943	102,746	60,540	26,292	23,447	30,963	243,988
42,212	335,683	56,035	5,623	183	539,736	1944	156,799	96,694	23,311	25,442	25,668	327,914
54,513	491,346	64,957	5,640	521	716,977	1945	118,849	54,370	28,302	28,718	22,420	252,659
65,810	541,334	37,817	3,982	34	648,977	1946	105,065	60,101	31,593	35,835	17,191	249,785
85,805	494,211	23,133	6,752	27	609,928	1947	106,180	30,073	21,183	34,430	30,718	222,584
98,030	303,564	93,918	4,046	189	499,747	1948	133,828	75,678	38,086	29,462	32,688	309,742
69,861	208,537	63,632	5,055	803	347,888	1949	165,588	19,139	21,844	26,783	31,234	264,588
64,463	266,694	73,846	5,786	408	411,197	1950	207,032	62,528	52,572	63,565	34,247	419,944
81,117	126,238	89,926	8,842	5,996	312,119	1951	171,030	24,296	21,884	27,707	59,973	304,890
89,888	281,405	141,730	4,678	1,963	519,664	1952	94,951	115,666	30,095	20,252	22,931	283,895
47,451	273,344	68,239	5,143	328	394,505	1953	101,206	27,208	41,457	18,880	28,952	217,703
34,643	382,779	141,682	6,597	682	566,383	1954	105,571	133,864	85,083	33,318	23,995	381,831
17,923	525,322	54,290	3,059	78	600,672	1955	79,006	62,454	29,450	13,698	15,034	199,642
29,461	156,127	62,970	4,990	157	253,705	1956	110,186	80,081	85,172	16,918	16,995	309,352
15,643	232,975	96,680	3,885	63	349,246	1957	58,102	18,709	122,146	9,713	12,549	221,219
54,848	275,692	88,691	5,208	1,067	425,513	Aver.	122,650	61,963	52,779	26,030	27,860	291,281

PRINCE WILLIAM SOUND and RESURRECTION BAY (Cases)							COPPER and BERING RIVER AREA (Cases)				REGIONAL GRAND TOTAL
Reds	Pinks	Chums	Cohoes	Kings	TOTAL	YEAR	Reds	Cohoes	Kings	TOTAL	
16,096	201,756	53,226	3,447	621	275,146	1935	8,453	9,385	760	18,598	1,802,231
13,440	609,537	23,660	5,245	431	652,313	1936	75,296	15	2,513	77,824	2,869,691
8,492	182,762	21,941	6,651	329	220,175	1937	78,238	5,463	3,868	87,569	2,216,359
10,615	461,114	31,218	6,846	251	510,044	1938	65,777	155	2,514	68,446	2,179,765
12,390	129,491	28,756	3,858	257	174,752	1939	52,285	1,116	2,192	55,593	2,011,910
7,065	521,745	54,001	10,257	182	593,250	1940	37,847	30,521	1,337	69,705	2,326,869
7,083	217,007	73,776	6,430	100	304,396	1941	36,868	83,142	3,067	123,077	1,958,969
13,289	366,965	82,633	13,703	449	477,039	1942	47,849	84,322	5,262	137,433	1,954,157
9,285	511,818	30,620	8,237	2,595	562,555	1943	57,418	21,837	4,893	84,148	2,165,306
12,741	416,848	118,159	7,902	158	555,808	1944	62,780	34,949	2,517	100,246	1,877,381
17,382	493,482	154,080	4,941	102	669,987	1945	70,744	41,103	6,037	117,884	2,091,739
10,432	317,329	76,003	16,037	408	420,209	1946	45,645	25,821	7,145	78,611	1,772,318
17,955	380,017	65,018	7,270	180	470,440	1947	30,717	22,231	3,596	56,544	1,822,007
19,115	123,411	47,008	5,048	74	194,656	1948	13,536	28,405	1,237	43,180	1,335,791
8,423	275,830	83,195	13,016	167	380,631	1949	46,404	15,986	1,964	64,354	1,288,163
7,179	111,838	57,464	12,441	88	189,010	1950	70,592	18,997	4,517	94,106	1,464,654
66,871	47,249	56,680	30,555	5,195	206,550	1951	39,963	24,513	3,737	68,213	1,131,994
07,471	118,905	68,430	37,987	9,231	342,024	1952	103,533	1,605	9,337	114,475	1,565,035
5,355	124,122	34,929	4,454	37	168,897	1953	51,136	3,884	3,163	58,183	1,372,725
1,688	1,240	1,670	603	.....	5,201	1954	102,850	33,035	4,336	140,221	1,397,778
1,864	5,941	1,602	663	.....	10,070	1955	56,071	27,610	5,840	89,521	1,164,727
15,771	186,537	49,334	3,678	31	255,351	1956	49,023	20,242	3,330	72,595	1,292,485
6,323	35,431	74,706	1,891	171	118,522	1957	48,994	10,198	2,149	61,341	988,660
24,006	103,050	47,502	11,034	1,499	187,091	Aver.	58,210	18,448	3,961	80,619	1,300,201

OTE: - Figures are based on U.S. Fish & Wildlife Service final data, which DO NOT include fish caught in these areas and canned elsewhere, and accordingly are somewhat different from those in other tables compiled independently by PACIFIC FISHERMAN
Figures for the latest year shown are preliminary. "Average" figures are for the last ten years.

SALMON
SOUTHEAST ALASKA

Southeast Alaska Pink Salmon Packs



Southeast Alaska Canned Salmon Packs by Subdivisions

YAKUTAT AREA (Cases)						YEAR	CAPE FAIRWEATHER - DIXON ENTRANCE* (Cases)					
Reds	Pinks	Chums	Cohoes	Kings	TOTAL		Reds	Pinks	Chums	Cohoes	Kings	TOTAL
22,545	9,737	105	13,609	1,102	47,098	1936	195,462	2,915,407	778,234	121,113	19,403	4,029,6
17,470	7,826	385	11,242	1,794	38,717	1937	150,274	2,135,342	503,381	77,283	28,899	2,895,1
27,211	7,417	397	26,854	1,450	63,329	1938	165,380	1,879,352	474,056	116,911	14,920	2,650,6
25,463	2,237	47	9,301	1,629	38,677	1939	169,895	1,473,121	296,057	56,935	812	1,996,8
14,947	4,962	164	27,747	511	48,331	1940	110,661	1,453,109	485,623	128,333	713	2,178,4
18,624	4,505	566	41,402	799	65,896	1941	119,235	3,636,256	319,372	152,569	1,005	4,228,4
11,005	2,465	10	21,513	96	35,089	1942	105,506	1,753,582	596,171	156,409	1,950	2,613,6
18,096	1,618	——	12,606	234	32,554	1943	67,247	1,036,821	673,692	80,928	1,626	1,860,3
15,386	3,447	3	14,301	789	33,926	1944	116,922	1,082,648	663,505	74,543	1,008	1,938,6
18,079	795	105	18,018	576	37,573	1945	111,717	1,040,854	266,732	90,687	1,980	1,511,9
4,081	1,939	23	4,056	358	10,457	1946	54,348	997,975	322,597	88,891	2,058	1,465,8
5,632	1,169	255	4,052	160	11,268	1947	50,273	679,648	257,689	69,490	3,843	1,060,9
3,589	4,042	506	10,840	305	19,282	1948	36,118	680,400	406,887	148,384	5,380	1,277,1
——	——	No operation in 1949		——	——	1949	39,552	2,103,982	243,483	124,919	1,015	2,512,9
9,154	1,873	647	6,252	271	16,197	1950	36,720	533,789	499,775	110,092	195	1,180,5
11,748	1,675	725	11,732	95	25,975	1951	58,569	1,224,907	465,609	252,661	541	2,002,2
5,425	1,813	1,302	19,113	660	28,313	1952	69,085	591,609	526,658	103,164	2,096	1,292,6
——	——	No operation in 1953		——	——	1953	125,958	353,247	410,384	86,479	1,414	977,4
——	——	No operation in 1954		——	——	1954	112,711	524,220	589,800	82,839	2,542	1,312,1
——	——	No operation in 1955		——	——	1955	55,049	544,555	177,311	61,171	1,666	839,7
——	——	No operation in 1956		——	——	1956	72,851	634,272	294,282	46,497	1,272	1,049,1
—	——	No operation in 1957		——	——	1957	82,512	404,221	364,756	57,547	1,358	910,3
2,992	940	318	4,794	133	9,177	Aver.	68,913	759,520	397,895	107,375	1,748	1,335,4

ICY STRAIT DISTRICT (Cases)							WESTERN DISTRICT (Cases)					
Reds	Pinks	Chums	Cohoes	Kings	TOTAL		Reds	Pinks	Chums	Cohoes	Kings	TOTAL
69,191	349,700	183,036	20,791	5,583	628,301	1936	25,290	242,902	148,839	12,503	2,774	432,3
39,640	208,448	56,621	6,906	405	312,020	1937	18,477	194,675	90,053	5,616	24	308,8
46,526	158,698	52,890	14,058	215	272,387	1938	20,868	163,377	56,116	8,394	48	248,8
46,675	78,127	38,943	3,615	151	167,511	1939	24,839	87,137	35,328	3,628	36	150,9
18,846	121,320	74,615	13,409	262	228,452	1940	13,319	176,542	100,444	16,400	58	306,7
8,948	218,163	17,418	10,231	232	254,992	1941	16,962	562,046	56,078	22,368	456	657,9
10,964	118,790	44,834	8,311	248	183,147	1942	15,193	339,504	130,855	26,112	71	511,7
11,397	60,881	63,985	3,147	124	139,534	1943	16,266	123,318	177,210	9,039	55	325,8
21,568	123,896	67,537	3,830	77	216,908	1944	21,771	277,172	191,816	7,384	7	498,1
13,827	45,971	25,095	4,789	278	89,960	1945	23,247	109,183	65,431	6,585	19	204,4
6,315	26,449	31,376	4,436	60	68,636	1946	14,813	81,192	74,500	6,837	479	177,8
6,504	30,952	14,498	3,014	118	55,086	1947	17,718	92,612	57,592	14,658	837	183,4
501	2,745	6,893	1,239	.....	11,378	1948	11,308	54,905	64,803	37,562	555	169,1
5,665	51,485	29,760	10,436	41	97,387	1949	12,580	378,876	43,136	29,721	442	464,7
3,362	3,287	25,164	5,473	22	37,308	1950	17,363	24,846	60,584	29,992	54	132,8
8,616	30,315	33,741	13,369	142	86,183	1951	16,195	147,996	107,998	65,040	6	337,2
11,169	17,919	26,184	7,355	217	62,844	1952	13,642	84,743	82,371	18,130	208	199,0
21,660	11,830	26,669	20,739	430	81,328	1953	26,068	34,900	108,921	3,167	86	173,1
8,590	13,369	25,831	1,547	90	49,427	1954	48,894	68,892	261,740	32,410	83	412,0
3,847	19,134	19,638	3,809	105	46,533	1955	26,045	87,457	79,547	15,752	256	209,0
8,958	12,669	16,920	4,065	181	42,793	1956	30,661	68,762	72,064	13,676	522	185,6
16,438	18,328	54,580	19,944	344	109,634	1957	21,312	54,289	96,217	6,296	148	178,2
8,881	18,108	26,538	8,798	157	62,482	Aver.	22,407	100,567	97,738	25,174	236	246,1

*Cape Fairweather to Dixon Entrance comprises all Southeast Alaska with the exception of Yakutat, therefore figures in this section are the total of all the following districts. Final data for Southeast Alaska has not been reported by subdivisions since 1949. Catch canned at Icy Strait & Wrangell plants.
NOTE: Figures are based on U.S. Fish and Wildlife Service final data, which DO NOT include fish caught in these areas and canned elsewhere, and accordingly are somewhat different from those in other tables compiled independently by Pacific Fisherman. Figures for the latest year shown are preliminary. "Average" figures are for the last ten years.

Southeast Alaska

- The Pink salmon pack of 405,000 cases reflects the general failure of this species. Although Southeastern produced 150,000 cases more than this in 1955, the current pack does exceed the low pack of Pinks in 1953 by 50,000 cases.

There were two outstanding features of the 1957 pink run:

(1) The outer section of the South Prince of Wales Island district experienced an unusually heavy offshore fishery. Of the 8 million Pink salmon taken in all of Southeastern Alaska, outer South Prince of Wales Island produced approximately 3 million—over 37%. The fish were so concentrated in the vicinity of Cape Addington that the greatest portion of the catch was taken by mobile gear within an area of less than 15 miles along the coast.

(2) The relative escapement from the total run was surprisingly good. There were gains over the parent year in both early and middle run streams. However the overall late escapement was less than in 1955 and was not good.

The Chum run was relatively substantial throughout the season, giving satisfactory proportionate escapement and a pack of nearly 350,000 cases. To offset the lack of fish of the summer season, there was unusual activity in utilizing the fall catches of both seines and gill nets, with the result that over 80,000 cases were processed, plus a substantial increase of frozen products.

The newly established gill net fishery from Red Bay to Lake Bay on the northeast coast of Prince of Wales Island produced somewhat less than hoped. Contrary to expectations, the Lake Bay fish were not intercepted, resulting in an underutilization of these Sockeye. Portland Canal was more productive in its first year of gill netting, accounting for 110,000 salmon, primarily chums. In comparison, the long established seine fishery in Portland Canal accounted for only 20,757 fish, over half of which were Pink salmon. The escapement in all American tributaries to Portland Canal was satisfactory.

The several gill net fisheries made a significant contribution to the 1957 pack. Chum salmon alone made up about 20% of the total production; 500,000 fish were caught.

Southeast Alaska Canned Salmon Pack by Subdivisions

EASTERN DISTRICT (Cases)						YEAR	WRANGELL DISTRICT (Cases)					
Reds	Pinks	Chums	Cohoes	Kings	TOTAL		Reds	Pinks	Chums	Cohoes	Kings	TOTAL
16,687	284,097	135,981	14,698	5,016	456,479	1936	25,405	326,866	93,544	27,726	1,085	474,626
8,923	323,556	65,931	6,904	8,257	413,571	1937	22,067	383,115	61,189	22,378	1,959	490,708
14,244	260,145	58,041	13,245	4,794	350,469	1938	18,492	217,161	59,652	20,433	86	315,824
11,730	217,432	53,199	7,179	317	289,857	1939	17,137	318,808	40,525	12,712	18	389,200
7,332	224,495	76,621	9,588	261	318,297	1940	21,306	165,783	73,544	32,040	26	292,699
9,079	601,161	64,880	9,210	113	684,443	1941	28,709	633,163	33,587	35,343	10	730,812
8,139	254,772	74,580	12,108	271	349,870	1942	22,212	167,742	67,652	42,730	895	301,231
7,192	93,048	110,712	5,452	799	217,403	1943	11,618½	120,730	80,696	17,431½	68	230,544
10,905	116,501	109,884	5,384	426	243,100	1944	16,065	59,256	66,069	9,024	17	150,431
10,168	94,505	29,267	4,010	207	138,157	1945	17,600	118,531	17,603	15,571	101	169,406
6,082	29,636	21,480	4,622	122	61,942	1946	6,417	66,258	16,017	18,894	173	107,759
5,342	38,272	28,935	3,960	510	77,019	1947	6,226	99,343	23,870	11,315	2,308	143,062
4,240	13,308	15,378	12,542	1,736	47,204	1948	7,260	53,860	55,460	22,799	2,971	142,350
72	43,944	6,055	8,661		58,732	1949	9,573	312,318	22,417	17,176	563	362,047
5,015	13,028	32,096	3,096	183	53,418	1950	7,190	36,846	44,815	30,849	55	119,755
1,146	74,522	68,391	20,777	168	165,004	1951	16,405	189,750	88,994	81,353	315	376,817
1,986	51,015	41,246	6,468	2	100,717	1952	13,445	78,552	80,763	30,359	1,413	204,532
8,713	12,333	25,930	3,905	6	50,887	1953	19,281	40,718	84,904	22,356	645	167,904
2,323	15,057	59,044	800	23	77,247	1954	21,116	65,357	110,282	20,844	1,633	219,232
2,143	40,054	13,757	3,517	100	59,571	1955	8,205	122,563	25,137	14,526	472	170,903
3,142	27,187	21,743	1,795	103	53,970	1956	8,720	98,075	40,116	9,456	362	156,729
849	1,460	2,972	85	26	5,392	1957	12,481	78,692	73,409	7,583	715	172,880
2,965	29,191	28,661	6,165	235	67,216	Aver.	12,368	107,673	62,630	25,730	914	209,315

SOUTH PRINCE OF WALES ISLAND DISTRICT (Cases)					YEAR	SOUTHERN DISTRICT (Cases)					REGIONAL GRAND TOTAL
Reds	Pinks	Chums	Cohoes	TOTAL		Reds	Pinks	Chums	Cohoes	TOTAL	
25,716	620,300	104,038	33,170	783,224	1936	60,217	1,222,241	192,641	32,834	1,507,933	4,067,717
23,545	345,068	65,613	33,908	468,134	1937	36,031	671,257	165,508	17,098	889,894	2,933,896
20,395	329,083	81,737	39,708	470,923	1938	44,399	749,432	162,473	27,346	983,650	2,713,948
22,107	207,989	45,249	11,648	286,902	1939	46,699	549,500	80,549	16,427	693,175	2,035,497
11,283	251,718	58,655	19,001	340,657	1940	36,652	503,005	98,092	35,881	673,630	2,226,770
11,548	584,582	55,624	33,178	684,932	1941	42,980	1,012,240	89,384	38,846	1,183,450	4,294,333
12,091	337,418	96,628	36,901	483,038	1942	37,713	533,057	181,262	28,308	780,340	2,648,707
5,656	162,482	75,217	15,780	259,135	1943	23,660	473,156	165,762	29,537	692,105	1,892,868
7,790	144,209	94,371	18,816	265,186	1944	38,465	349,073	132,735	29,482	549,755	1,972,552
11,217	225,606	43,240	26,274	306,337	1945	33,735	418,327	77,829	30,873	560,764	1,506,662
6,141	203,887	67,452	17,340	294,820	1946	16,994	582,377	101,901	35,336	736,608	1,458,043
4,626	110,324	42,141	12,150	169,241	1947	9,279	308,929	88,107	22,248	428,563	1,067,656
2,886	163,397	64,240	26,125	256,648	1948	9,661	388,325	192,232	39,446	629,664	1,275,659
3,014	406,385	41,200	17,701	468,300	1949	8,561	909,596	100,512	41,364	1,060,033	2,511,274
2,591	182,381	83,659	16,199	284,830	1950	6,231	273,449	247,876	28,779	556,335	1,202,682
4,686	127,347	44,407	27,598	204,038	1951	13,438	592,425	124,633	38,474	768,970	1,964,222
10,952	103,694	28,715	15,632	158,993	1952	17,775	241,256	250,056	25,748	534,835	1,289,328
17,320	102,773	24,824	14,673	159,590	1953	32,916	150,693	139,136	21,886	344,631	977,482
15,235	53,063	43,073	10,435	121,806	1954	16,553	308,482	89,830	17,516	432,381	1,312,112
5,261	77,154	12,053	5,500	99,968	1955	9,548	198,193	27,179	18,800	253,720	839,752
6,646	127,465	27,269	7,683	169,063	1956	14,724	300,114	116,170	9,926	440,934	1,049,174
13,628	131,094	20,515	10,934	176,171	1957	17,804	120,358	117,063	12,746	268,055	910,394
8,723	147,475	38,495	15,248	209,941	Aver.	14,721	348,289	139,469	25,469	528,955	1,333,208

NOTE. -- Small quantities of Kings have been included with Cohoes in the last two districts listed. Final data for Southeast Alaska has not been reported by subdivisions since 1949. Figures are based on U.S. Fish and Wildlife Service final data, which DO NOT include fish caught in these areas and canned elsewhere, and accordingly are somewhat different from those in other tables compiled independently by Pacific Fisherman. Figures for the latest year shown are preliminary. "Average" figures are for the last ten years.

ESTABLISHED 1898

ANDERSON & MISKIN, LTD.

EXPORTERS

CANNED FISH

Canadian Salmon
American Salmon
Canadian Herring
Canadian Pilchards

California Pilchards
California Sardines
California Mackerel
California Squid

OFFICES

Colman Building
SEATTLE

260 California Street
SAN FRANCISCO

448 Seymour Street
VANCOUVER, CANADA

CABLE ADDRESS — MISKAND

1957 -SOUTHEAST ALASKA CANNED SALMON PACK- 1957

	COMPANY	CANNERY LOCATION	RED or SOCKEYE			PINK			CHUM			COHO			KING	GRAND TOTAL	
			1-lb. Talls, etc.	½ lb. Flats (8 doz.)	Total	1-lb. Talls, etc.	½ lb. Flats (8 doz.)	Total	1-lb. Talls, etc.	½ lb. Flats (8 doz.)	Total	1-lb. Talls, etc.	½ lb. Flats (8 doz.)	Total	1-lb. Talls, etc.	(full cases)	
	CANNED IN SOUTHEAST ALASKA																
1	Annette Islands Canning Co.	Metlakatla	1,494	1,171	2,665	24,368	3,545	27,913	20,369	1,025	21,394	1,346	20	1,366	...	53,338	1
2	Excursion Inlet Packing Co.	Excursion Inlet	523	12,506	13,029	19,433	..	19,433	(1) 58,516	3	58,519	(1) 10,306	891	11,197	(5) 360	102,538	2
3	Farwest Wrangell Co.	Wrangell	2,082	815	2,897	16,338	3,973	20,311	10,512	552	11,064	1,347	2,336	3,683	(6) 253	38,208	3
4	Fidalgo Island Packing Co.	Ketchikan	1,195	..	1,195	8,428	..	8,428	8,498	..	8,498	619	..	619	13	18,753	4
		Petersburg (A)	397	..	397	2,400	..	2,400	2,301	..	2,301	339	..	339	12	5,449	4
5	Haines Packing Co.	Letnikof Cove	173	4,275	4,448	...	727	727	12,919	4,818	17,737	1,303	194	1,497	(7) 60	24,469	5
6	Halferty Canneries, Inc.	Juneau	(4) 850	..	850	(4) 1,464	..	1,464	(4) 2,986	..	2,986	(4) 95	..	95	(4) 26	(4) 5,421	6
7	Harbor Seafoods Co.	Wrangell	(4) 828	..	828	(4) 789	..	789	(4) 2,206	..	2,206	(4) 298	..	298	(4) 323	(4) 4,444	7
8	P. E. Harris Co., Inc.	Hawk Inlet	3,714	.	3,714	11,461	..	11,461	7,699	..	7,699	512	..	512	24	23,410	8
9	Hood Bay Salmon Co.	Hood Bay & Pelican (B)	687	..	687	4,204	..	4,204	20,642	..	20,642	157	..	157	12	25,702	9
10	Hydaburg Cooperative Assn.	Hydaburg, etc. (C)	1,179	..	1,179	15,870	..	15,870	5,293	..	5,293	867	.	867	25	23,234	10
11	Independent Salmon Canneries	Ketchikan	525	12	537	5,902	72	5,974	17,098	103	17,201	476	..	476	...	24,188	11
12	Kayak Packing Co.	Klawock (fl.)	..	..	..	...	..	...	1,228	..	1,228	179	..	179	...	1,407	12
13	Kayler-Dahl Fish Co.	Petersburg	66	3,479	3,545	4,724	2,198	6,922	10,309	3,416	13,725	726	1,126	1,852	...	26,044	13
14	Keku Canning Co.	Kake (D)	712	..	712	9,430	..	9,430	10,951	..	10,951	292	..	292	17	21,402	14
15	Ketchikan Packing Co.	Ketchikan (E)	1,214	..	1,214	4,725	..	4,725	4,872	..	4,872	660	..	660	...	11,471	15
16	Klawock Oceanside Packing Co.	Hydaburg (F)	683	.	683	7,800	..	7,800	2,791	..	2,791	..	..	..	17	11,291	16
17	Libby, McNeill & Libby	Petersburg (A), George Inlet & Craig	3,030	1,285	4,315	37,732	1,525	39,257	13,231	..	13,231	2,245	..	2,245	41	59,089	17
18	Lutak Fish Co.	Lutak Inlet	..	728	728	...	25	25	...	894	894	..	85	85	...	1,732	18
19	Nakat Packing Corp.	Ketchikan & Waterfall	5,109	5,378	10,487	54,218	11,593	65,811	10,803	2,988	13,791	4,321	3,651	7,972	...	98,061	19
20	New England Fish Company	Chatham, Ketchikan & Noyes Island (G)	7,011	936	7,947	59,346	6,951	66,297	42,907	1,867	44,774	6,170	507	6,677	21	125,716	20
21	Pacific American Fisheries, Inc.	Petersburg, George Inlet (H) & Pillar Bay (A)	1,643	2,053	3,696	23,885	6,011	29,896	16,242	2,280	18,522	1,486	1,632	3,118	84	55,316	21
22	Pelican Packing Co.	Pelican, etc. (I)	8,318	..	8,318	21,061	..	21,061	26,609	..	26,609	2,929	..	2,929	44	58,961	22
23	Petersburg Processors, Inc.	Petersburg & Hydaburg (J)	(4) 195	..	195	(2) 3,074	..	3,074	(2) 3,495	..	3,495	(2) 102	(8) 34	136	...	6,900	23
24	Petersburg Seafoods, Inc.	Petersburg & Hydaburg (J)	(4) 97	..	97	(3) 1,537	..	1,537	(3) 1,747	..	1,747	(3) 52	(8) 19	71	...	3,452	24
25	Todd Packing Co.	Hawk Inlet & Pelican (K)	620	..	620	2,831	..	2,831	4,025	..	4,025	108	..	108	4	7,588	25
26	Trans Pacific Fishing & Pkg.	Hawk Inlet (K)	95	..	95	546	..	546	357	..	357	22	..	22	...	1,020	26
27	Wards Cove Packing Co.	Wards Cove (L)	863	2,177	3,040	14,730	2,286	17,016	13,070	876	13,946	1,727	..	1,727	...	35,729	27
28	Whiz Fish Products Co.	Kake (M)	712	.	712	9,430	..	9,430	10,951	..	10,951	292	..	292	17	21,402	28
	TOTAL SOUTHEAST ALASKA CANNERIES		44,015	34,815	78,830	365,726	38,906	404,632	342,627	18,822	361,449	38,976	10,495	49,471	1,353	895,735	
	SOUTHEAST ALASKA SALMON SHIPPED OUT AND CANNED ELSEWHERE*																
	OPERATOR	VESSEL or SOURCE															
1	Alaska Shellfish, Inc. Farwest Wrangell Co., Joint	Wrangell Dist. (Z)	..	..	..	...	..	...	(10) 5,097	..	5,097	(4) 119	..	119	...	5,216	1
2	Northern Products Corp.	Shore Freezers, etc. (Y & X)	..	..	..	(4) 228	..	228	(4) 63	..	63	(11) 436	540	976	...	1,267	2
3	Pacific American Fisheries	"Nuisance" (W)	..	..	..	...	..	...	(4) 1,531	..	1,531	(4) 5	..	5	...	1,536	3
4	Whitney & Company	"Reefer King" (Z & V)	..	..	..	...	..	...	3,289	..	3,289	(12) 1,984	..	1,984	...	5,273	4
5	Whiz Fish Products Co.	Various Tenders (U)	..	..	..	...	..	...	(13) 2,797	..	2,797	..	..	..	...	2,797	5
	TOTAL CANNED ELSEWHERE		..	..	..	228	..	228	12,777	..	12,777	2,544	540	3,084	...	16,089	
	GRAND TOTAL, SOUTHEAST ALASKA		44,015	34,815	78,830	365,954	38,906	404,860	355,404	18,822	374,226	41,520	11,035	52,555	1,353	911,824	

NOTES:- Many of the packs listed were made, partly or wholly, in plants of other companies, through joint-operating or custom-canning arrangements, most of which were as follows: (A) in P. A. F. Petersburg; (B) Includes 116 cases in Pelican; (C) Includes 173 cases in Hood Bay, (D) Share from joint with Whiz; (E) in Wards Cove; (F) in Hydaburg; (G) in Nakat Waterfall; (H) in Libby George Inlet; (I) Includes fish canned in Hood Bay, Hydaburg & Excursion Inlet; (J) From joint packs in Petersburg Processors & Hydaburg; (K) Custom-canned; (L) Includes share from joint in several plants. (M) Share from joint with Keku.

FOUR-POUND cans are included with Talls, as follows: (4) All 4-lbs. (1) 7,235 cases Chums and 5,858 Cohoes. (2) All #4 except 80 cs. Pinks, 312 Chums & 2 Cohoes canned in Hydaburg. (3) All except 40 Pinks, 156 Chums & 1 Coho canned in Hydaburg. (10) 556 Chums & 119 Cohoes. (11) 4 cs. Cohoes. (12) 707 Cohoes. (13) 4,159 Chums.

KINGS, except as noted, are in #1 Talls, but include Halves (96) as follows: (5) 19 cs., also 71 STEELHEAD talls. (6) 194 cs. (7) All halves.

(8) All QUARTERS, basis 48 lbs.

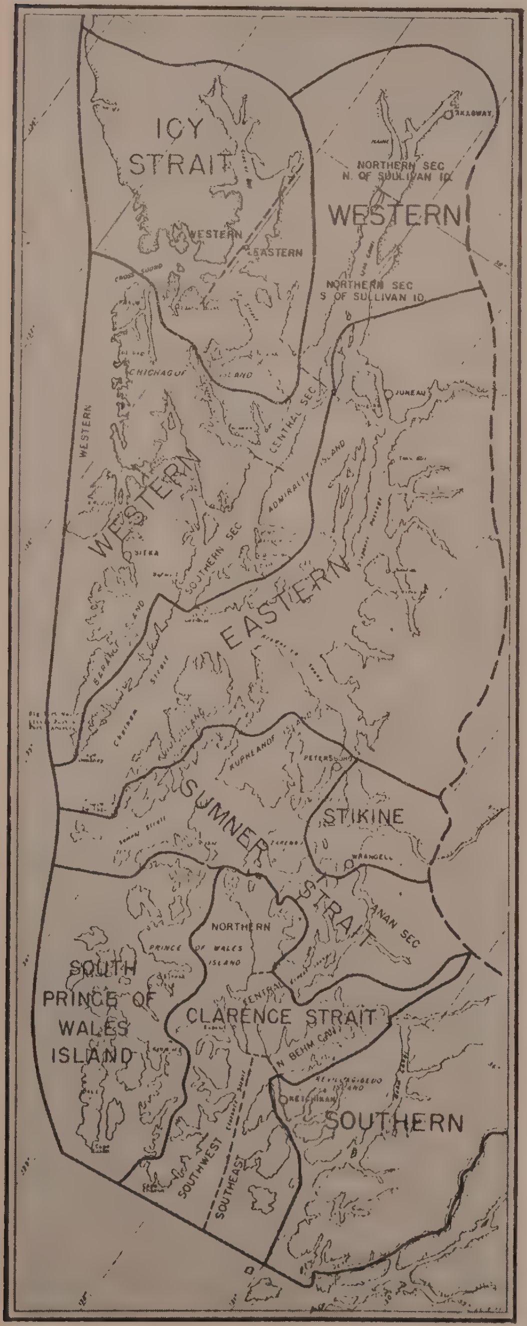
* "SALMON SHIPPED OUT" includes NO fish canned in Southeast Alaska, but consists of Southeast Alaska fish canned on Puget Sound. Plants in which fish were canned were: (Z) Farwest Anacortes; (Y) Seaport Fish Co., Seattle; (X) Crown Seafood, Seattle; (W) P.A.F. Bellingham; (V) Sebastian Anacortes; (U) Whiz LaConner.

SALMON
SOUTHEAST ALASKA

Prospects for 1958

• Forecasting the Southeast Alaska Pink salmon run through the years has proven as hazardous as predicting the appearance of three plums on a slot machine, and this continues true despite the painstaking and expensive research which has been carried out in an effort to solve the biological as well as the mechanical mystery.

In examining the data derived from study of the spawning downstream migration and fingerling results of the 1956 run the Bureau of Commercial Fisheries' Alaska biologists find the evidence sharply contradictory. For example, the 1956 spawning was satisfactory and the downstream migration of the just-hatched fry in the following spring was rated "good". On t other hand, enumeration of fingerli salmon observed in the vicinity salmon traps later in 1957, during t period of inshore feeding and grow provided an abundance index whi was the lowest of three years, inclu ing those which produced the runs mature salmon in 1956 and 1957.


ICY STRAIT
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EASTERN
KUPREANOF ISLAND
PETERSBURG
STIKINE
WRANGELL
SUMNER STRAIT
NORTHERN
PRINCE OF WALES ISLAND
SOUTH PRINCE OF WALES ISLAND
CLARENCE STRAIT
CENTRAL
N BEHM CANAL
REVILLAGIGEDO ISLAND
KETCHIKAN
SOUTHERN
SOUTHWEST
SOUTHEAST

Regulatory districts of Southeast Alaska are outlined on the accompanying map, showing the boundaries established with the intention of dividing as nearly as practicable the areas in which the runs of salmon have differing characteristics, usually in the matter of the timing of their spawning migrations. Broadly, the runs fall into early and late periods, with the early runs generally occurring in the northerly areas, while the extreme southern districts have the latest Pink runs of all. The Alaska fishery regulations are drawn separately for each of these districts, although they may be identical in many respects.

Thus the scientists are in somewh of a quandary. If the survival fro the 1956 is accepted as an index, th "a Pink salmon run that will produ a million or more cases may occur

On the other hand, if the eviden of scarce fingerlings in 1957 prov a reliable index, "then a much low production will occur in 1958".

• Taking the position that it was jus fied in expecting a "normal abun ance of Pinks in 1958", the Alask Administration proposed some rela ation of the restrictions upon gea which had been imposed in 1954 as temporary measure.

Such relaxation was proposed permit use of power blocks and dru seines; opening additional waters seining; restoring trap effectiveness about 60% of pre-1954 rating, place of the 50% prevailing 1954-7.

Significantly, there developed Alaska considerable opposition to th relaxation.

This was particularly true with r spect to any action which would pe mit restoration of any traps whatso ever.

While Alaska fishermen generall were agreeable to permitting the us of power blocks in the Southeaster region, they generally opposed any thing which would permit drum seine to be used there.

• Southeast Alaska was about th only area on the coast where fa fishing was up to expectations.

In both British Columbia an Puget Sound there was a severe short age of both Cohoes and Chums dur ing the autumn weeks.

Southeast Alaska, on the othe hand, produced about 125,000 case of Chums and 25,000 cases of Cohoes

Alaska Fishery Graphs Produced in Juneau

• The several graphic presentations of Alaska salmon and herring runs, operations and production in 1957, appearing throughout this "Yearbook" are the work of the Alaska regional office, Bureau of Commercial Fisheries, U. S. Fish and Wildlife Service at Juneau and were drawn for original use in the Administration's presentation of its regulatory proposals for 1958 and the facts supporting them.

1957—A Year of Problems

- The year 1957 was not without its troubles for British Columbia's salmon industry, but there was some consolation for packers and fishermen in the knowledge that, in general, escapement had been good, and that the Adams River run in 1958 should be a bountiful one. These considerations, however, belonged to the future. They did little to relieve the gloom from 1957.

The bitter brew of the industry was concocted from a variety of ingredients:

1. Disappointing runs and catches, except in a few instances.
2. One of the smallest Sockeye packs in years.
3. The third successive year of failure for Chum runs.
4. Continued rise in cost of operation.
5. Deterioration of relations between organized fishermen and operators.
6. Complications due to increasing intensity of the fishing effort—more boats, more efficient gear.
7. The continuing threat of power development on salmon rivers.

These were only a few of the problems; there were many others.

- While some individual fishermen did fairly well when they tallied up their earnings, the situation industry-wide was anything but favorable. Looking back over the years, it was hard to find a salmon season in British Columbia that was closely parallel to 1957. There had been worse seasons, of course, but none with so many difficulties of one kind or another.

Industry in British Columbia and the Puget Sound area had been warned by the International Pacific Salmon Fisheries Commission that the 1957 run of Sockeye, normally expected to increase, might be below that of the brood year. The actual run, including commercial catch, Indian catch and escapement, was 4,787,000, compared with the corresponding figure of 5,407,000 for 1953; in other words, down 12%.

Subject to minor corrections, the total Sockeye and Pink catch in convention waters for 1957 was distributed as follows:

1957 Sockeye Salmon

United States	(53%)	1,526,000
Canada	(47%)	1,353,000
Non-divisible (U. S. catch during Canadian strike, extended to July 16)		171,000
Total catch		3,050,000
Approximate escapement		1,603,357
Total 1957 run		4,650,000

1957 Pink Salmon

United States	(51%)	2,777,000
Canada	(49%)	2,632,000
Total catch		5,409,000

Division Equality Falters

- The division of catch of both species between the fishermen of Canada and the U. S. was not up to previous standards of accuracy for several reasons: (1) The Sockeye run was later and spread out over a longer period than the run in 1953; (2) The adverse effect of the Bonilla-Tatoosh line on the efficiency of the Canadian fishing fleet; (3) A record-breaking run of

1957 -BRITISH COLUMBIA CANNED SALMON PACK- 1957

	# Canneries	(Cases)							
		Sockeye	Springs	Steelheads	Bluebacks	Coho	Pinks	Chums	TOTAL
District No. 1 (FRASER RIVER & HOWE SOUND)									
Anglo-B C. Packing Co., Lts. - "Phoenix"									
British Columbia Packers, Ltd. - "Imperial"									
Canadian Fishing Co., Ltd. - "Home"									
Carlyle Packing Co									
Johnston Fishing & Packing Co., Ltd. - "Glen Rose"									
Francis Millerd & Co., Ltd. - "Great Northern"									
Nelson Bros. Fisheries, Ltd. (Colonial)									
Queen Charlotte Fisheries, Ltd. - "Bidwell"									
Seafood Products, Ltd									
Tulloch Western Fisheries, Ltd.									
District No. 2A (SKEENA & NAAS AREAS)	19	227,436	12,571	1,315	12,147	193,726	751,048	245,024	1,443,267
Anglo-B.C. Packing Co., Ltd. - "North Pacific"									
British Columbia Packers, Ltd. - "Sunnyside"									
Cassiar Packing Co, Ltd. - "Cassiar"									
Canadian Fishing Co., Ltd. - "Oceanside"									
Nelson Bros. Fisheries, Ltd. - "Port Edward"									
District No. 2B (CENTRAL AREAS, etc.)									
British Columbia Packers, Ltd. - "Namu"									
Canadian Fishing Co. - "Goose Bay"									
J. H. Todd & Sons, Ltd. - "Klemtu"									
District No. 2C (QUEEN CHARLOTTE IS.)									
Queen Charlotte Canners									

NOTE: Figures are preliminary statistics of the Canadian Fisheries Department and are subject to later correction. Publication of statistics for the pack by districts in British Columbia has been discontinued, because present operating practice, in which fish from one district may be canned in another tends to confuse and impair information based on quantities canned within specific areas. Figures are for full cases of 48 one-pound cans or equivalent.

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We believe that in order to represent Packers successfully for sales in the United Kingdom and to obtain the full confidence of buyers, it is essential that Representative Agents should have had practical experience in the production areas, to know and to distinguish between the varying qualities, and to be familiar with the many problems besetting packers.

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CRAB
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jack Sockeye (three-year old males) which produced a sizeable catch of these small fish to the effective U. S. purse seine fleet, but which were too small to be available to the Fraser River gill net fleet; (4) Failure of the Canadian gillnet fleet to catch a normal quantity of Pinks during the fishing time provided; (5) The unprecedented early "drift back" of both Sockeye jacks and large numbers of Pinks from the Gulf of Georgia which resulted in unexpectedly high catches by U. S. fishermen in the Point Roberts area, and (6) The necessary long weekend closed seasons in all fishing areas made it extremely difficult to anticipate either catch or escapement.

Equipment Is Adequate

- While the total run of Sockeye was down 12% and the catch was 25% below that of 1953, the escapement totaled 1,637,000 compared with 1,274,000 for 1953, or an increase of 28% over the brood year.

As predicted, the 1957 run was later and not so compact in timing as in 1953. Current studies indicate that the moon phase — which alternates from dark to light on a given date every four years — may be related to the alternating quadrennial character of each run. The later timing of the escapement resulted in a better relationship with the spawning environment. Practically no fish died on the spawning grounds, and spawning in the two key producing areas—Stuart and Quesnel—was actually three times as effective as in 1953 when large numbers of fish died unspawned due to early arrival and high water temperatures. It should be pointed out, however, that escapements several times as large as those occurring in 1957 are required to bring these uses up to pre-Hell's Gate slide levels.

	Quesnel	Late Stuart
1941	1,100	5,500
1945	3,000	24,000
1949	20,000	147,000
1953	108,000	350,000
1957	229,000	527,000

- On the basis of factual evidence, the rigid control of the 1957 U. S. fishery was not excessive. Such controls involving three-day fishing weeks, or less, can be expected to be standard in future unless gear efficiency is substantially reduced by some formula satisfactory to the U. S. fishing industry.

During the past season there was criticism that escapements were ex-

BRITISH COLUMBIA CANNED SALMON PACK

YEAR	Sockeyes Fraser River	Sockeyes Other Districts	Total Sockeyes	Springs	Cohoes & Bluebacks	Steelheads	Pinks	Chums	TOTAL Cases	YEAR
1903	204,809	163,908	368,717	25,657	51,918	...	27,382	...	473,674	1903
1904	72,688	250,536	323,226	38,675	66,351	...	...	37,642	465,894	1904
1905	837,489	243,184	1,080,673	28,359	44,458	...	13,970	...	1,167,460	1905
1906	183,007	276,672	459,679	32,344	69,132	...	68,035	...	629,460	1906
1907	59,815	254,259	314,074	26,098	87,900	683	118,704	...	547,459	1907
1908	63,126	291,897	355,023	28,164	81,917	1,137	76,448	...	542,689	1908
1909	542,248	298,193	840,441	19,017	61,918	...	46,544	...	967,920	1909
1910	133,045	432,870	565,915	28,789	74,382	140	34,613	58,362	762,201	1910
1911	58,487	325,022	383,509	48,456	119,702	100	305,247	91,951	948,965	1911
1912	108,784	335,778	444,762	80,437	165,102	207	247,743	58,325	996,576	1912
1913	684,596	287,582	972,178	41,049	69,822	...	192,887	77,965	1,353,901	1913
1914	185,483	351,213	536,696	49,328	120,201	...	220,340	184,474	1,111,039	1914
1915	89,040	387,002	476,042	58,104	146,956	2,927	367,352	82,000	1,133,381	1915
1916	27,394	187,395	214,789	66,726	183,623	9,982	280,644	240,201	995,065	1916
1917	123,614	116,234	339,848	76,276	157,589	11,740	496,749	475,273	1,497,475	1917
1918	16,849	259,610	276,459	107,354	191,068	15,916	527,745	497,615	1,616,157	1918
1919	29,628	339,817	369,445	100,551	199,993	4,493	346,639	372,035	1,393,156	1919
1920	44,598	306,807	351,405	118,301	120,033	2,395	520,856	84,626	1,187,616	1920
1921	35,900	128,014	163,914	49,752	124,348	1,220	192,906	71,408	603,548	1921
1922	48,744	250,870	299,614	39,596	109,276	1,657	581,979	258,204	1,290,326	1922
1923	29,423	305,224	334,647	27,142	119,141	1,760	440,932	418,055	1,341,677	1923
1924	36,200	333,403	369,603	27,456	119,989	1,811	657,538	568,916	1,745,313	1924
1925	31,523	361,120	392,643	73,499	199,180	1,996	445,400	607,904	1,720,622	1925
1926	83,589	253,406	336,995	69,189	181,894	2,165	772,993	701,962	2,065,198	1926
1927	57,085	250,947	308,032	58,977	181,968	1,746	247,617	562,109	1,360,449	1927
1928	26,530	177,011	203,541	18,856	156,757	865	792,362	863,256	2,035,637	1928
1929	60,407	220,899	281,306	19,377	196,444	672	477,969	424,982	1,400,750	1929
1930	107,896	369,782	477,678	38,804	190,594	1,656	1,111,937	401,114	2,221,783	1930
1931	54,688	236,776	291,464	27,147	102,175	1,326	206,995	55,997	685,104	1931
1932	83,447	200,908	284,355	76,060	188,971	1,168	223,716	306,761	1,081,031	1932
1933	53,481	204,626	258,107	20,266	159,052	1,459	532,558	293,630	1,265,072	1933
1934	145,579	232,303	377,882	29,784	225,430	1,282	435,364	513,184	1,582,926	1934
1935	76,415	274,029	350,444	21,920	231,492	596	514,966	409,604	1,529,022	1935
1936	165,651	249,373	415,024	29,854	246,061	1,068	591,532	597,487	1,881,026	1936
1937	103,137	222,637	325,774	16,171	133,208	844	585,576	447,602	1,509,175	1937
1938	186,794	260,659	447,453	15,531	301,123	1,035	400,876	541,812	1,707,830	1938
1939	73,216	196,672	269,888	16,103	245,096	797	620,602	386,584	1,539,070	1939
1940	86,215	280,188	366,403	17,741	224,524	1,205	213,911	643,443	1,467,227	1940
1941	149,715	305,582	455,297	50,476	391,407	3,454	427,766	920,470	2,248,870	1941
1942	418,491	248,080	666,571	24,745	211,139	4,649	270,622	633,834	1,811,560	1942
1943	72,507	92,382	164,889	10,658	186,042	3,095	530,188	363,348	1,258,221	1943
1944	107,431	140,283	247,714	19,362	183,546	3,926	389,692	255,316	1,097,557	1944
1945	122,384	205,617	329,001	12,800	218,887	2,922	825,512	350,188	1,739,311	1945
1946	381,580	161,447	543,027	8,100	100,154	4,115	116,607	576,133	1,348,138	1946
1947*	91,238	195,259	286,497	10,017	146,293	3,268	600,787	486,615	1,533,478	1947
1948	83,986	176,656	260,642	16,438	207,116	5,665	321,721	496,553	1,308,137	1948
1949	116,171	143,649	259,821	21,163	215,376	2,374	709,992	227,737	1,436,464	1949
1950	239,333	168,708	408,041	9,133	116,642	3,243	446,516	498,984	1,482,560	1950
1951	260,258	168,041	428,299	13,698	312,845	3,656	736,093	461,806	1,956,397	1951
1952	213,408	235,766	449,174	9,064	64,095	3,752	675,836	91,514	1,293,435	1952
1953	176,097	334,050	510,147	13,048	110,164	3,031	794,764	394,113	1,825,267	1953
1954	486,805	193,913	680,718	14,080	128,080	3,734	335,550	580,574	1,742,736	1954
1955	95,377	149,444	244,821	17,853	185,723	1,590	831,253	124,860	1,406,100	1955
1956	84,296	320,096	320,096	11,671	217,915	1,254	363,633	203,710	1,118,279	1956
1957	100,700	126,736	227,436	12,571	205,873	1,315	751,048	245,024	1,443,267	1957
10 Year Average	185,643	201,706	378,920	12,872	176,373	2,961	596,641	332,488	1,501,264	10 Year Aver.

NOTE: - Figures for 1925 to 1956 have been corrected from official statistics. Figures for "Fraser River Sockeyes" include all Sockeyes canned in District No. 1, regardless where caught. *Figures for 1947 include 28,321 cases packed from frozen fish of 1946 catch of various species. Figures for 1957 are subject to further correction.

cessive and the controls too rigid. Actually, the U. S. catch was optimum under a good management program and the only justifiable criticism is that which might be raised by the Canadian fishermen for their failure to catch 50% of the allowable catch.

1958 Outlook Bright

● The brightest feature in the Sockeye picture for 1958 is the Adams River run which can be expected to produce 5/6 of the total. On the basis of average productivity of Fraser River Sockeye spawners established over a period of ten years after construction of the Hell's Gate fishways the 1955, 1956 and 1957 runs should have been considerably larger than they actually were. Fresh water survival rates in these years were generally good, based on actual counts and field observations. Adverse ocean survival rates obviously accounted for the decline of 17, 14 and 12%, respectively, for the 1955, 1956 and 1957 runs over the brood years. It is interesting to note that the Chum runs to the Fraser have declined much more drastically than the Sockeye runs.

● In 1954, the Adams escapement was sufficient to produce a maximum number of fry. Observations in the spring of 1956 revealed a fantastically large seaward migration of yearling fingerlings. In fact, the migration was so large that it attracted special interest on the part of local resort operators. The 1957 escapement revealed 275,000 three year-old jacks on the spawning grounds—some 50,000 more than in 1953, preceding the record-breaking run of 10,000,000 four year-olds in 1954. In fact, the 1957 run of three year-olds was the largest since 1912, which preceded the phenomenal run of 33,000,000 four year-old Sockeyes in 1913, the ye of the Hell's Gate slide.

All these factors, combined wi other data, have indicated the dro in the 1955, 1956 and 1957 run whereas the same factors and da give rise to optimism regarding th 1958 run. Of course, there may b elements so far undetected that cou affect the 1958 Sockeye crop advers ly just as a sudden hailstorm can ru a grain harvest. But the known co siderations point unmistakably to big run on the Fraser next season.

1958 Sockeye Proposals

● Vigorous, unorthodox handling an expected 12-million fish Sockey run is proposed to the industry an the International Pacific Salmon Fish eries Commission by the commissio staff.

Loyd A. Royal, director of the Fr ser River salmon enterprise, late 1958 frankly acknowledged a glowin outlook for 1958, with a run of 1 million Sockeye or better, attracting vast amount of increasingly-effectiv gear.

Under these conditions, the prob lem of providing (1) adequete, bu not excessive, escapement; and (2 equal division of the catch, become a touchy one, calling for a new cours of control, courageously pursued.

The plan offered for consideratio of the industry and commission in ac tual fact may be expected to go a ste beyond the two primary requiremen of the Sockeye Treaty, and to produc a pack of high quality, from fish take near their peak condition.

The proposed regulations broadl seek:

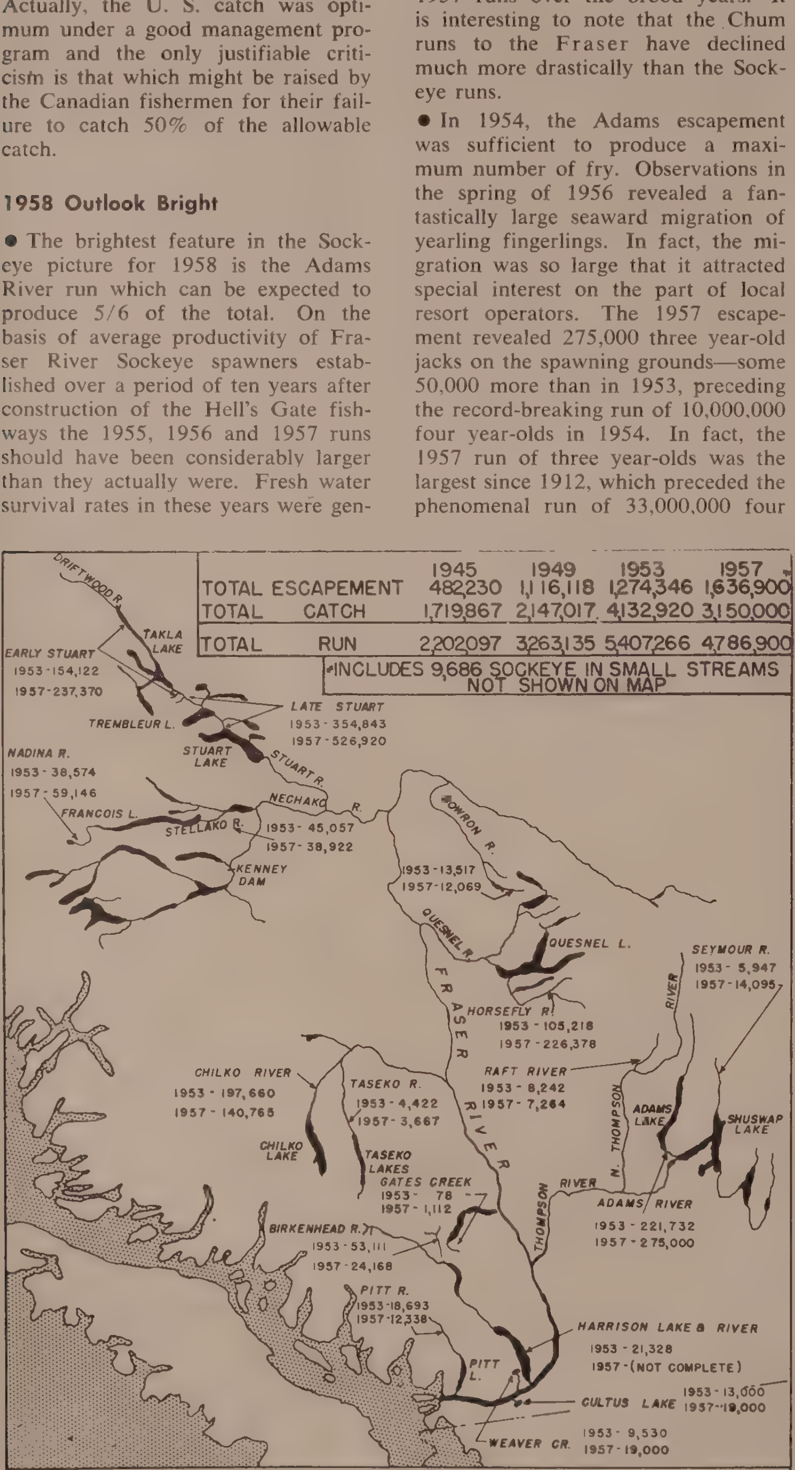
1. To reserve the early run to Ca nadian waters primarily for the rive fishermen;

2. To give the Canadian share o the late run primarily to gear fishin in the straits, of Juan de Fuca and o Georgia.

3. American operations conducte largely on the Adams River segmen of the run, with the primary seaso for all gear running five days a wee during the period from August 17 t September 14. This main period wi be preceded by a three-day period du ing the week Aug. 10-17.

Closure of a triangular area o American waters from Point Robert due south to the International Bour dary from August 31 to Septembe 20 is provided as protection agains "blowback" of river fish which some times characterizes the Adams Rive run.

For both Canadian and America gear treaty waters west of a line fro the vicinity of Port Angeles to that o Victoria would be closed to all Sock



	1945	1949	1953	1957
TOTAL ESCAPEMENT	482,230	1,116,118	1,274,346	1,636,900*
TOTAL CATCH	1,719,867	2,147,017	4,132,920	3,150,000
TOTAL RUN	2,202,097	3,263,135	5,407,266	4,786,900

*INCLUDES 9,686 SOCKEYE IN SMALL STREAMS NOT SHOWN ON MAP

DRIFTWOOD R.
TAKLA LAKE
EARLY STUART
1953-154,122
1957-237,370
LATE STUART
1953-354,843
1957-526,920
TREMBLEUR L.
STUART LAKE
STUART R.
NADINA R.
1953-38,574
1957-59,146
FRANCOIS L.
NECHAKO R.
STELLAKO R.
1953-45,057
1957-38,922
KENNEY DAM
BOWRON R.
1953-13,517
1957-12,069
QUESNEL R.
QUESNEL L.
SEYMOUR R.
1953-5,947
1957-14,095
RIVER
FRASER RIVER
HORSEFLY R.
1953-105,218
1957-226,378
CHILKO RIVER
1953-197,660
1957-140,765
TASEKO R.
1953-4,422
1957-3,667
RAFT RIVER
1953-8,242
1957-7,264
N. THOMPSON
ADAMS LAKE
SHUSWAP LAKE
CHILKO LAKE
TASEKO LAKES
GATES CREEK
1953-78
1957-1,112
THOMPSON
RIVER
ADAMS RIVER
1953-221,732
1957-275,000
BIRKENHEAD R.
1953-53,111
1957-24,168
PITT R.
1953-18,693
1957-12,338
HARRISON LAKE & RIVER
1953-21,328
1957-(NOT COMPLETE)
PITT L.
1953-13,000
CULTUS LAKE
1957-19,000
1953-9,530
WEAVER CR.
1957-19,000

RACIAL ESCAPEMENT FIGURES — 1957 CYCLE
FRASER RIVER SOCKEYE

I.P.S.F.C.

eye fishing prior to August 10. This s perhaps the unorthodox features of he regulations, and the only proposal o which industry advisors raised any bjection.

arge Run Anticipated

• Under the 1958 regulatory program roposed, Mr. Royal said the staff isualizes operations thus:

	Fish
Escapement	2,704,000
U. S. Catch	4,933,000
B. C. Catch	4,463,000
Total Run	12,100,000

Adjustment of the 470.000-fish ad- antage which this visualizes for the American fleet would be sought by ate-season adjustments through clos- ure of American fishing, or by permitting the Canadians to take a por- ion of the escapement, 2.7 million ish being somewhat more than is considered altogether desirable on the resent 1958 cycle.

In brief, the proposed regulations alled for: No U. S. fishing prior to uly 20; three days a week from July 0 to August 17 in inside waters; three ays from August 10 to August 17 in he strait; five days weekly from August 17 to Sept. 14.

The more complicated Canadian attern would be: June 23 to August 7, inside waters only, three days a week; river fishing, Aug. 17-Sept. 14, wo days a week, closed entirely after Sept. 14; Gulf waters, two days weekly from Aug. 17 to 24; five days weekly from Aug. 24 to Sept. 14; Strait of Juan de Fuca, west of William Head, six days a week, Aug. 10 to Sept. 7.

"Tremendous Latent Possibilities"

• In reviewing the 1957 season with ts special difficulties of administraion, Mr. Royal reported a satisfacory escapement of 1,666,000 Sockeyes had been attained. Racial disribution was regarded as generally excellent; and he credited the escapement with "tremendous latent possibilities."

This latter was because spawning ground studies gave an index of effectiveness three times that of 1954, which produced the 1957 return. This improved condition traced primarily to factors affecting migration time of the salmon and favorable water temperatures at spawning time.

Experience with Pink salmon in 1957, the first year of the commission's responsibility for this species, raised the hope that the Fraser Pink run eventually could be built up to pre-1913 levels as result of operation of the fishways at Hells Gate, and as means are found for providing adequate and consistent escapement.

Discovery of substantial Pink spawning on the gravels of the main stem of the Fraser below Hope was one of the significant contributions of the initial research.

International Management Begins for Pink Run

• It was the first year of international management of the Pink fishery on the Fraser, this responsibility being taken over by the existing Sockeye Commission. The Pink Salmon Treaty was not ratified until July 3, 1957, and U. S. funds were not available until September 1. In spite of confusion over ratification and finances the commission increased its permanent staff by four men—three biologists and one engineer—to meet the challenge of management of the added species.

The pre-season evidence indicated a poor 1957 Pink run and for the first time the commission overruled a unanimous recommendation of its advisory committee for a five-day fishing week. The four fishing days granted to the fishermen of both countries was reduced to three in U. S. waters before the season was over, and the run proved to be the third poorest in the history of the fishery. Only 1941 and 1943 produced smaller runs.

The Pink escapement in 1957 was not considered optimum, but excellent in view of the poor run. Preliminary estimates indicate an escapement of about 2,200,000, divided approximately as follows: Thompson River and tributaries below Kamloops Lake, 250,000; Seton Creek, 65,000; miscellaneous streams, 25,000; Vedder River, 200,000; Harrison-Chehalis, 650,000; Main Fraser, 1,000,000.

In general, the Fraser Pink run is divided into two separate sections — early and late. The main Fraser, Thompson, Seton Creek and most of the miscellaneous streams comprise the early section which peaks in the Fraser fishery proper about September 15 after a delay at the mouth. The Harrison and Vedder rivers make up the late section which appears after a waiting period in the latter part of September or early October.

The recovery of Pink salmon above Hell's Gate gives rise to optimism that the 1913 run of Pinks to the Fraser can be regained. In 1911 and 1913, the abundance of Fraser River Pink salmon was at least two or three times that in 1915 or any year since. Historical reports indicate that the run above the Gate in 1911 was in the millions and few, if any at all, in 1913. The recovery of Pinks above the Gate has been coincidental with the Hell's Gate fishways. In fact, Pink salmon are now found about 100 miles above the Bridge River Rapids fishways and may have reached the Chilcotin River in 1957.

Power Threats Persist

• Invasion of salmon rivers by the hydro-electric interests is still a threat, and during the year 1957 the industry had new reasons to fear encroachment on the Fraser by the dam builders,

Fraser River Sockeye Salmon Catch by Cycles

British Columbia	1939-	568,943	1940-	1,033,000	1941-	2,116,723	1942-	5,047,599	British Columbia
Washington		555,233		654,091		1,558,554		2,935,192	Washington
TOTAL		1,124,176		1,687,091		3,675,277		7,982,791	TOTAL
British Columbia	1943-	349,011	1944-	1,003,826	1945-	969,444	1946-	4,240,198	British Columbia
Washington		242,077		435,443		706,464		3,551,306	Washington
TOTAL		591,088		1,439,269		1,675,908		7,791,504	TOTAL
British Columbia	1947-	355,035	1948-	752,691	1949-	1,020,799	1950-	894,469	British Columbia
Washington		88,220		1,089,091		1,056,792		1,220,893	Washington
TOTAL		443,255		1,841,782		2,077,591		2,115,362	TOTAL
British Columbia	1951-	1,288,162	1952-	1,154,383	1953-	1,992,343	1954-	4,722,463	British Columbia
Washington		1,136,795		1,113,475		2,032,437		4,806,258	Washington
TOTAL		2,424,957		2,267,858		4,024,780		9,528,721	TOTAL
British Columbia	1955-	1,108,081	1956-	894,836	*1957-	1,360,000			
Washington		1,006,610		906,872		1,689,207			
TOTAL		2,114,691		1,801,708		3,049,207			

* Figures for 1957 are preliminary. Figures in this table, taken from reports of the International Pacific Salmon Fisheries Commission, represent the actual numbers of Sockeye known to have been caught in waters covered by the Fraser River Sockeye Salmon treaty. No reliable catch statistics for years prior to 1939.

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Major-General A. G. L. McNaughton, chairman of the Canadian section of the International Joint Commission, renewed his advocacy of diverting the Columbia into the Fraser and damming the latter to produce power when he appeared before the House of Commons external affairs committee in Ottawa in December.

Despite claims to the contrary by qualified engineers and biologists, the general insists that "major fish losses" can be avoided, even with a series of high power dams on the Fraser. His recommendations were vigorously opposed by representatives of the fishing industry who maintain that to dam the Fraser would ruin the river's great Sockeye resource now being restored by long-term management.

Attitude of the provincial government has been to discourage hydro development on the Fraser and all other salmon rivers in British Columbia; in fact, there has been considerable disagreement between the federal and provincial governments on the whole question of power development. B. C. Electric Co., major power producer in the province, has indicated its readiness to avoid interference with the Fraser because of the fishery and has embarked on a $100,000,000 thermal power plant to supplement power from other sources.

Proposal by Axel Wenner-Gren, Swedish capitalist, to survey the Peace River as a possible site for large-scale hydro development was hailed by the industry, as such a project would at least take some of the pressure off the Fraser as a potential source of power, and there are no salmon on the Peace.

Growing Gear Problem

- There was little that the industry could do about many of its problems—the variations in the runs, rising costs and the menace of power dams. But one which they could control—if all interests could get together on a solution—was the problem imposed by concentration of increasingly efficient gear. This was one of the factors that cut into fishermen's individual earnings, tended to increase operating costs and difficulties and made it increasingly difficult to maintain scientific control of escapement because of the necessity to reduce fishing time to a minimum. Since joint action on a voluntary basis seemed too much to expect, the Canadian fisheries department was studying the desirability and efficacy of arbitrary measures.

Fraser River-Puget Sound Sockeye Pack, by Cycles

British Columbia	1895-	395,984	1896-	356,984	1897-	860,459	1898-	256,101	British Columbia
Washington		65,143		72,979		312,048		252,000	Washington
TOTAL		461,127		429,963		1,172,507		508,101	TOTAL
British Columbia	1899-	480,485	1900-	229,800	1901-	928,669	1902-	293,477	British Columbia
Washington		499,646		228,704		1,105,096		339,556	Washington
TOTAL		980,131		458,504		2,033,765		633,033	TOTAL
British Columbia	1903-	204,809	1904-	72,688	1905-	837,489	1906-	183,007	British Columbia
Washington		167,211		123,419		837,122		182,241	Washington
TOTAL		372,020		196,107		1,674,611		365,248	TOTAL
British Columbia	1907-	59,815	1908-	74,574	1909-	585,435	1910-	150,432	British Columbia
Washington		96,974		170,951		1,097,904		248,014	Washington
TOTAL		156,789		245,525		1,683,339		398,446	TOTAL
British Columbia	1911-	58,487	1912-	123,879	1913-	719,796	1914-	198,183	British Columbia
Washington		127,761		184,680		1,673,099		335,230	Washington
TOTAL		186,248		308,559		2,392,895		533,413	TOTAL
British Columbia	1915-	91,130	1916-	32,146	1917-	148,164	1918-	19,697	British Columbia
Washington		64,584		84,637		411,538		50,723	Washington
TOTAL		155,714		116,783		559,702		70,420	TOTAL
British Columbia	1919-	38,854	1920-	48,399	1921-	39,631	1922-	51,832	British Columbia
Washington		64,346		62,654		102,967		48,566	Washington
TOTAL		103,200		111,053		142,598		100,398	TOTAL
British Columbia	1923-	31,655	1924-	39,743	1925-	35,385	1926-	85,689	British Columbia
Washington		47,402		69,369		112,023		44,673	Washington
TOTAL		79,057		109,112		147,408		130,362	TOTAL
British Columbia	1927-	61,393	1928-	29,299	1929-	61,569	1930-	103,692	British Columbia
Washington		97,594		61,044		111,898		352,194	Washington
TOTAL		158,987		90,343		173,467		455,886	TOTAL
British Columbia	1931-	40,947	1932-	65,769	1933-	52,465	1934-	139,238	British Columbia
Washington		87,211		81,188		126,604		352,579	Washington
TOTAL		128,158		146,957		179,069		491,817	TOTAL
British Columbia	1935-	62,822	1936-	184,854	1937-	100,272	1938-	186,794	British Columbia
Washington		54,677		59,505		60,259		134,641	Washington
TOTAL		117,499		244,359		160,531		321,435	TOTAL
British Columbia	1939-	54,296	1940-	99,009	1941-	171,290	1942-	446,371	British Columbia
Washington		43,511		59,354		110,605		263,458	Washington
TOTAL		97,807		158,363		281,895		709,829	TOTAL
British Columbia	1943-	31,973½	1944-	88,515	1945-	79,781½	1946-	331,292	British Columbia
Washington		19,179		37,509		53,054½		280,018	Washington
TOTAL		51,152½		126,024		132,836		611,310	TOTAL
British Columbia	1947-	27,857	1948-	61,650	1949-	80,629	1950-	81,510	British Columbia
Washington		7,516		90,441		80,547		116,458	Washington
TOTAL		35,373		152,091		161,176		197,968	TOTAL
British Columbia	1951-	134,400	1952-	115,814	1953-	176,097	1954-	486,805	British Columbia
Washington		118,151		114,638		178,323		501,496	Washington
TOTAL		252,551		230,452		354,420		988,301	TOTAL
British Columbia	1955-	95,377	1956-	84,296	1957*	100,700			
Washington		85,136		84,052		116,500			
TOTAL		180,513		168,348		217,200			

*Figures for 1957 are approximate. Statistics represent 48-lb. cases of Sockeyes caught in the Fraser River district of British Columbia and adjacent waters of the State of Washington, whether canned in those districts or elsewhere -- and not including other Sockeye canned in those districts. This accounts in large part for the discrepancy between these statistics and those appearing elsewhere in this issue.

Let's Face the Facts!

— our problems will not solve themselves!

— others will gladly assist us!

— but the responsibility is ours!

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"Big Year" Coming Up

Puget Sound and Southern British olumbia fishing industries enter 1958 n assurance as sure anything can be n the salmon business that the year vill bring an abundant run of Sockye to the Fraser River.

This is the cycle of the "Big Year," with its remarkably faithful delivery of an excellent run. To the assurance of the historic record is added evidence from the 1957 run, of which the 3-year-old segment is taken as an index forecasting something of the volume of the 4-year-old main run due the following year.

The run of 3-year fish in 1956 was one of the largest ever recorded on the Fraser—perhaps the largest since

PUGET SOUND CANNED SALMON PACK

uget Sound salmon canning commenced in 1877 with a pack of 5,500 cases, but no segregation by species is available prior to 1889. From the beginning production creased, with much fluctuation, to 22,000 cases in 1887; the average for intervening years being 7,867 cases. Values shown are based on opening prices. "Average" gures at bottom of table are for last ten years.

EAR	# of Plants Oper.	Sockeye		Pink		Chum		Coho		Chinook		TOTAL		YEAR
		Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value	
888	4	...	...	...	...	...	...	...	...	...	...	21,975	$126,356	1888
889	2	...	...	2,809	$7,584	1,145	$3,435	7,480	$37,400	240	$1,200	11,674	49,619	1889
890	1	...	...	...	...	4,000	12,000	3,000	15,000	1,000	5,000	8,000	32,000	1890
891	2	5,538	$24,921	5,647	15,246	3,093	10,825	5,869	19,368	382	2,101	20,529	72,461	1891
892	2	2,954	11,816	...	...	16,180	56,630	7,206	24,500	86	473	26,426	93,419	1892
893	3	47,852	103,371	17,530	47,331	11,380	31,295	11,812	59,060	1,200	6,480	89,331	247,537	1893
894	3	41,781	188,014	9,049	24,432	22,152	60,918	22,418	89,672	...	...	95,400	363,036	1894
895	7	65,143	273,108	23,633	62,556	38,785	94,741	50,865	154,218	1,542	7,325	179,968	591,948	1895
896	11	72,979	350,299	...	...	26,550	73,013	82,640	264,448	13,495	67,475	195,664	755,235	1896
897	12	312,048	1,248,192	57,268	171,804	23,310	64,103	91,900	282,133	9,500	39,045	494,026	1,805,277	1897
898	18	252,000	1,058,400	...	...	38,400	105,600	98,600	335,240	11,200	50,624	400,200	1,549,864	1898
1899	19	499,646	2,368,334	252,733	734,241	31,481	86,427	111,387	418,176	24,364	103,180	919,611	3,170,358	1899
1900	19	228,704	1,149,000	...	...	89,100	245,025	128,200	512,800	22,350	134,100	469,450	1,940,925	1900
1901	..	1,105,096	...	275,494	...	...	...	...	...	...	...	1,380,590	...	1901
1902	21	339,556	2,047,655	...	...	93,492	467,460	85,817	429,085	30,049	150,245	548,914	3,094,445	1902
1903	22	167,211	1,003,260	181,236	407,984	12,001	30,002	103,450	413,800	14,500	72,500	478,398	1,929,546	1903
1904	13	123,419	653,871	...	...	49,656	124,254	118,127	447,851	14,441	69,352	305,643	1,295,328	1904
1905	24	847,122	4,952,718	70,992	212,976	41,057	102,643	79,335	337,174	1,804	9,922	1,040,310	5,615,433	1905
1906	16	182,241	1,251,236	...	...	149,218	708,781	94,497	472,485	8,139	48,834	430,602	2,481,336	1906
1907	14	93,122	698,416	433,423	1,300,269	50,249	150,847	119,472	476,288	1,814	16,326	698,080	2,642,146	1907
1908	22	170,951	1,196,657	6,079	18,225	47,607	142,821	128,922	644,922	95,210	664,470	448,765	2,669,095	1908
1909	11	1,097,904	6,183,300	370,993	902,342	53,688	128,916	143,133	630,446	13,019	72,604	1,632,949	7,917,608	1909
1910	24	248,014	1,673,095	108	388	146,942	514,297	162,755	895,153	10,064	60,324	567,883	3,143,256	1910
1911	15	127,761	1,168,145	1,046,992	4,302,344	104,321	392,122	256,124	1,591,185	21,823	172,582	1,557,021	7,727,524	1911
1912	20	184,680	1,660,173	700	2,185	60,760	154,193	149,727	761,200	20,252	101,706	416,125	2,679,457	1912
1913	22	1,673,099	10,871,178	791,886	2,092,401	56,225	124,970	61,019	235,372	1,234	5,247	2,583,463	13,329,168	1913
1914	31	335,230	3,208,969	892	4,212	278,801	955,920	151,893	759,689	26,044	167,322	792,860	5,095,839	1914
1915	41	64,584	676,769	583,649	1,795,285	411,724	155,744	180,783	902,335	28,466	145,555	1,269,206	4,675,418	1915
1916	32	84,637	699,161	1,887	8,264	427,878	1,492,161	155,832	957,650	37,030	280,708	707,278	3,437,944	1916
1917	45	411,538	5,366,218	1,124,884	7,823,960	216,285	1,362,634	114,276	1,065,983	57,543	540,904	1,921,554	16,159,699	1917
1918	32	50,723	781,992	6,605	53,336	267,538	1,715,159	235,860	2,532,553	63,472	754,637	624,198	5,837,677	1918
1919	35	64,346	1,186,413	421,215	3,854,113	525,541	1,687,787	210,883	2,618,504	73,618	910,968	1,295,626	12,257,785	1919
1920	11	62,654	1,725,252	4,669	28,860	48,849	3,225,368	24,502	221,688	25,846	370,215	166,520	2,571,385	1920
1921	23	102,967	1,991,368	404,713	1,870,385	30,831	123,608	89,412	798,541	25,567	199,609	653,490	4,983,511	1921
1922	16	48,566	945,178	2,225	13,273	65,552	283,395	111,771	744,656	20,615	222,641	248,729	2,209,143	1922
1923	18	47,402	860,000	475,849	2,429,800	97,081	471,790	122,000	785,000	15,806	150,407	758,138	4,696,997	1923
1924	12	69,369	1,182,358	5,945	39,192	134,360	651,014	87,879	688,950	20,096	216,043	317,649	2,777,557	1924
1925	23	112,023	2,098,683	553,904	3,179,302	43,345	207,546	173,215	1,902,289	29,183	432,349	911,670	7,820,169	1925
1926	14	44,673	532,408	2,107	15,095	112,204	573,411	123,469	1,163,286	27,972	365,826	310,425	2,650,026	1926
1927	21	97,594	2,115,410	578,923	3,669,941	38,129	225,654	135,802	1,358,020	41,796	588,314	892,244	7,957,339	1927
1928	14	60,081	1,207,981	5,597	41,091	146,356	833,114	89,923	777,472	23,419	294,816	325,376	3,154,024	1928
1929	22	111,898	2,203,496	727,621	4,639,076	156,683	911,584	101,635	1,044,372	34,007	439,778	1,131,844	9,238,306	1929
1930	12	352,194	4,890,921	3,712	18,486	64,234	237,123	122,691	1,240,876	29,775	407,912	572,606	6,795,318	1930
1931	18	83,728	1,316,348	705,580	2,486,377	55,189	177,000	76,025	569,699	28,359	293,022	948,881	4,842,446	1931
1932	10	78,319	897,006	1,677	5,779	146,151	381,116	60,740	330,385	24,024	168,625	310,911	1,782,912	1932
1933	19	125,738	1,340,000	543,340	2,643,528	37,039	171,742	44,568	292,684	21,091	221,776	771,776	4,669,910	1933
1934	21	340,787	3,632,587	3,296	17,331	72,841	251,991	69,080	517,901	14,089	74,024	500,093	4,493,834	1934
1935	14	51,714	720,076	369,620	1,652,161	15,636	68,402	70,514	534,956	9,243	91,396	516,727	3,066,991	1935
1936	9	60,063	813,510	1,152	7,598	86,070	315,465	30,568	292,528	4,708	43,427	182,561	1,472,528	1936
1937	13	56,983	925,160	327,973	1,676,692	18,759	91,696	31,747	323,976	6,412	76,750	441,874	3,094,274	1937
1938	13	139,152	1,824,396	455	2,641	7,697	32,193	10,268	100,753	2,371	36,800	159,943	1,996,783	1938
1939	14	43,561	669,202	282,271	1,574,317	15,080	76,786	54,905	485,760	2,446	33,508	398,263	2,839,573	1939
1940	9	62,748	1,122,684	2,947	17,432	23,405	114,798	30,654	231,878	1,674	15,734	121,428	1,502,526	1940
1941	9	110,758	2,140,457	153,924	1,203,657	25,423	187,224	46,213	553,230	4,769	62,354	341,087	4,146,922	1941
1942	10	258,488	5,255,888	851	7,965	2,223	17,748	6,862	97,693	1,204	26,389	269,628	5,405,683	1942
1943	10	19,149	424,339	62,129	637,730	243	2,432	26,292	390,847	2,864	12,456	110,677	1,467,804	1943
1944	3	37,214	830,719	299	3,313	...	...	373	5,883	1,064	21,240	38,950	861,155	1944
1945	6	53,532	1,176,467	305,245	2,724,176	1,184	12,467	18,802	258,076	3,639	63,511	382,402	4,234,697	1945
1946	20	271,311	10,108,350	91	2,184	47,099	989,079	7,118	163,714	6,841	268,120	332,460	11,531,447	1946
1947	25	7,516	315,956	639,426	13,423,416	139,131	2,532,194	79,450	2,254,404	29,143	875,098	894,666	19,401,068	1947
1948	22	91,268	5,005,792	4,645	128,328	245,133	5,558,820	70,659	2,049,606	27,043	903,578	438,748	13,646,124	1948
1949	23	94,627	2,959,425	557,740	9,305,100	162,532	2,381,000	55,910	1,273,000	8,594	224,000	879,403	16,142,525	1949
1950	20	128,385	4,984,208	2,277	61,855	512,997	10,752,172	116,655	3,454,279	8,215	191,712	768,529	19,444,226	1950
1951	25	156,461	5,815,837	441,605	9,419,295	233,468	3,922,457	88,511	2,200,801	11,275	281,794	931,320	21,640,184	1951
1952	20	114,707	5,153,778	817	51,026	292,318	5,147,662	172,910	4,079,424	7,869	178,654	588,621	14,610,544	1952
1953	22	164,848	6,041,592	440,860	8,239,810	144,542	1,761,160	54,901	1,012,224	3,974	106,937	809,125	17,161,723	1953
1954	21	507,719	16,364,291	1,429	32,314	272,455	4,292,256	29,252	742,533	5,054	119,568	815,909	21,550,962	1954
1955	23	81,913	3,088,120	411,280	9,108,207	88,672	1,745,505	63,526	1,886,722	10,177	253,698	655,568	16,082,252	1955
1956	15	70,285	2,865,168	320	7,382	47,068	987,721	59,481	1,836,178	3,582	100,475	180,736	5,796,924	1956
1957	20	121,010	5,628,871	223,966	5,372,908	65,421	1,160,223	79,339	2,359,032	3,173	108,075	492,909	14,629,109	1957
Aver.	21	153,122	5,790,708	208,494	4,172,623	206,460	3,770,798	79,114	2,089,380	8,886	246,849	656,087	16,070,457	Aver.

NOTE:- Figures for the last year in this table are from "Pacific Fisherman's" compilation. Those for previous years have been revised from official data. Fish from British Columbia are included; fish from Alaska omitted.

Fishermen's Packing Corporati

CANNERS OF PUGET SOUND SALMON

SOCKEYE
Snow Cap
Snowland

COHOE
Olympic
Green Breaker
Ocean Spray

PINK
Waterfall

CHUM
Golden West
Golden Glow

•

FISHERMEN'S PACKING CORP.

SNOW CAP
BRAND
PUGET SOUND
SOCKEYE SALMON
GREEN BREAKER
COHOE SALMON
Water
BRAND
PINK
SALM
WEIGHT OF CONTENTS

OFFICE AND CANN
ANACORTES, WASHING

he all-time high of 1912, which pre-eded the record Sockeye production f 1913.

This factor, plus numerous others f more complicated character, leads Loyd A. Royal, director of the In-ernational Pacific Salmon Fisheries Commission, to predict a 1958 catch f not less than 10 million Sockeye, o be divided between the fishermen f the two countries. There are ompetent observers who consider the Royal figure as a minimum estimate.

What Hit the 1957 Pinks?

- While the 1957 Sockeye run on Puget Sound fell short of the fisher-nen's hopes, it was the scanty Pink roduction which really hurt; and the Cohoes and Chums as well proved ltogether disappointing.

Not too much had been expected f the Sockeye operations. Warning ad been raised by the Sockeye com-nission that the run might fall short f the cycle year, and this forecast vas confirmed by the fact.

It remained, however, for the Pink un to sag heavily. The total pack of Pinks reached only 224,000 cases, as gainst 411,000 cases in the cycle year 955. It was the poorest Pink run in n odd-numbered year since the dis-strous 62,000 cases put up in the ailure year 1943, and the preceding 54,000-case pack of 1941. These ow levels were followed by a period f virtual recovery to an average for he odd years of close to 500,000 ases. This condition persisted until 957, which saw the plunge from 11,000 in 1955 to 224,000 cases.

- Weakness in Pinks was followed by cant Coho and poor Chum fishing. To secure essential escapement even t the expense of current loss of catch, Milo Moore, Washington director of isheries, closed all salmon fishing, port as well as commercial, toward he end of the season. This reserved ll remaining fish in the depleted runs or spawning to sustain the succeeding cycles.

As the Chum run of British Co-umbia also was extremely poor, there were no surplus fish available from his source, which sometimes is resorted to for a supply of fresh Chums or Puget Sound canning.

- Value of the Puget Sound run was $14,629,000 in spite of the light pro-duction. Sockeyes and Pinks were close to either in value, the red fish being priced at $5,628,871 and the pink at $5,372,908.

- Administration of the Sockeye fish-

1957 -PUGET SOUND CANNED SALMON PACK- 1957

	COMPANY	CANNERY LOCATION	SOCKEYE			PINK			CHUM			COHO or SILVER			KING or CHINOOK			[illegible] TOTAL	
			1# Talls & 4# Talls etc.	2 & 1/4-lb Flats (48 lbs.) Net	TOTAL	1-lb Talls & 4-lb Flats etc.	1/2-lb Flats (48 lbs.) Net	TOTAL	1-lb Talls & 4-lb Flats etc.	1/2 & 1/4-lb Flats (48 lbs.) Net	TOTAL	1-lb Talls & 4-lb Flats etc.	2 & 1/4-lb Flats (48 lbs.) Net	TOTAL	1-lb Talls & 4-lb Flats etc.	2 & 1/4-lb Flats (48 lbs.) Net	TOTAL		
1	Alaska Packers Association	Blaine		17,321	17,321	22,720	5,100	27,820	22		22	1,000	432	[illegible]				[illegible]	1
2	[illegible] Packing Company	Anacortes		3,256	3,256	11,574	2,184	13,758	[illegible]	[illegible]	[illegible]	125	1,2[illegible]	[illegible]				[illegible]	2
3	[illegible]	Bellingham (A)		(4) 2,741	2,741	(2) 4,405	1,056	5,461		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	3
4	[illegible] Packers Assn., Inc.	Bellingham		(5) 13,[illegible]	13,[illegible]	11,701	2,035	13,736	54		[illegible]		1,241	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4
5	[illegible], Inc.	Seattle (I)	(6) 1,14[illegible]		1,14[illegible]	(3) 1,074		1,074	(6) 3,233		3,233	(6) [illegible]		[illegible]				[illegible]	5
6	Dressel-Collins Fish Co.	Seattle		[illegible]	798	3,911	5,292	9,203		1,914	1,914	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
7	[illegible], Inc.	Anacortes		(9) 10,[illegible]	10,123	6,867	10,260	17,127	[illegible]	[illegible]	205	2	(8) [illegible]	[illegible]		[illegible] 1,0[illegible]	1,[illegible]	[illegible]	[illegible]
8	[illegible] Packing Corp.	Anacortes		(10) 16,33[illegible]	16,33[illegible]	[illegible]	14,80[illegible]	24,183		44	44	(11) [illegible]	(10) [illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible] Co.	Seattle		(12) 182	182	(4) 40		40	(13) 2,035	389	2,424	(14) [illegible]	[illegible]	[illegible]	[illegible] 1,1[illegible]		1,1[illegible]	[illegible]	[illegible]
10	Friday Harbor Canning Co.	Friday Harbor		425	425	301	158	459		1	1		12	12				[illegible]	[illegible]
11	[illegible] Parsons, Inc.	San Juan Is.		(11) 2,300	2,300	1,661	1,314	2,975	8,118	2,260	10,378	30	(11) 1,124	[illegible]				[illegible]	[illegible]
12	[illegible] Packing Corporation	Anacortes	150	5,616	5,766	8,790	3,299	12,089	10	22	32	[illegible]	1,04[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible] Packing Company	Point Roberts (B)							[illegible]		[illegible]							[illegible]	[illegible]
14	New England Fish Company	Everett & Friday Harbor (C & D)	105	6,149	6,254	(15) 13,084	4,429	17,513	29	13	42	(15) 2,353	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
15	Pacific American Fisheries, Inc.	Bellingham	181	(16) 8,010	8,191	(17) 10,948	4,427	15,375	(16) 37	15	52	(17) [illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible] Packing Company	Bellingham (E)		(18) 324	324	(19) 2,650	450	3,100					[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible] Fish Company	Seattle (F)	6	375	381	886	15	901	16,530		16,530	16,[illegible]	1,[illegible]	21,[illegible]				[illegible]	[illegible]
18	San Juan Fishing & Packing Co.	Anacortes, etc. (A & G)		52	52	(1) 1,542		1,542				(21) [illegible]	(22) 1,[illegible]	[illegible]				[illegible]	[illegible]
19	[illegible] Canning Company	Everett				(23) 88		88	(4) 1,116		1,116							[illegible]	[illegible]
20	Sea-Pac Company	Bellingham		25	25	400		400	1,120		1,120		125	125				[illegible]	[illegible]
21	Sebastian-Stuart Fish Company	Anacortes		(24) 6,294	6,294	(25) 6,412	1,548	7,960		10	10	[illegible]	(26) 1,437	[illegible]		[illegible]	1	[illegible]	[illegible]
22	Wards Cove Packing Company	Anacortes (H)		60	60	630		630				11		11				[illegible]	[illegible]
23	Washington Fish & Oyster Co.	Seattle		5,374	5,374	[illegible] 15,011	5,771	20,782	[illegible] 6,557	1,805	8,362	[illegible]	(27) [illegible]	[illegible]				[illegible]	[illegible]
24	Whiz Fish Products Company	La Conner	(1) 8	(28) 12,669	12,677	(29) 17,898	3,842	21,740	(29) 58		58	(29) 6,074	[illegible]	[illegible]	(29) 593	[illegible]	[illegible]	[illegible]	[illegible]
	TOTAL		1,599	119,411	121,010	157,979	65,987	223,966	59,606	5,815	65,421	43,678	35,661	79,339	[illegible]	[illegible]	[illegible]	492,909	

NOTES:- As far as possible, Alaska fish canned on Puget Sound is OMITTED from this table and tabulated with the Alaska packs.

Most of the packs canned in plants of other companies, through joint operation or custom-canning were: (A) in Sebastian Anacortes plant, (B) in Iwersen Pt. Roberts, (C) in [illegible] Everett, (D) in Friday Harbor, (E) in Burk Bellingham, (F) in Seaport Fish Co. Seattle, (G) in Crown Seafood & Perfection Smokery, Seattle, (H) in American Pkg. Co., Anacortes.

FOUR-POUND cans are included with Talls, as follows: (4) All 4-lbs.; (2) 758 cs. Pinks, (8) 1,040 Pinks, 139 Chums & 2,144 Cohoes; (13) 1,798 Chums & 169 Cohoes, (15) 2,509 Pinks & 801 Cohoes; (17) 954 Pinks, 34 Chums & 193 Cohoes; (19) 400 Pinks, (21) 5,139 Cohoes; (23) 62 Pinks; (25) 1,111 Pinks; (26) 1,000 Pinks & 1,257 Chums; (29) 7,697 Pinks, 48 Chums, 2,331 Cohoes & 209 Kings.

QUARTERS are included with Halves (basis 48 lbs.) as follows: (1) 295 Sockeyes; (5) 4,375 Sockeyes, canned in C.R.P.A. Astoria plant, (9) 1,802 Sockeyes, 3,[illegible] Cohoes & 792 Kings; (10) 5,031 Sockeyes & 1,40[illegible] Cohoes, (12) [illegible] Sockeyes, (14) [illegible] Sockeyes & 1,053 Cohoes, (16) 291 Sockeyes; (18) [illegible] Sockeyes, (22) 88 Cohoes (24) [illegible] Sockeyes & 23 Cohoes; (27) 621 Cohoes; (28) 158 Sockeyes.

(2) Includes 1-lb. FLATS, [illegible] Pinks & [illegible] Cohoes. (11) Includes 12-oz. cans (basis of 48 lbs.), 291 cases Pinks & 147 Cohoes. (6) Mostly custom canned for various other operators including some Alaska and Washington Coast fish, not segregated. (7) Alaska Reds, not tabulated elsewhere. *Estimated

Red Breast
Brand
Fancy
Salmon
Steak
Distributed by F. A. Gosse Company Seattle USA

For A SHORE DINNER

Sea Haven
Drained
Wt 4½ oz.
Wet Pack
De-veined
Shrimp

Red Breast SALMON Recommends—

Heinz
Tomato
Ketchup

PACIFIC OCEAN SHRIMP COCKTAIL

Drain well one 4½-oz. can of SEA HAVEN Pacific Ocean-Caught Tiny Shrimp. Place shrimp in cocktail glass and top with Heinz Tomato Ketchup. A real quick taste thrill. Serves 2 to 4.

Heinz
57
Condensed
Cream of
Mushroom
Soup

CURRIED SHRIMP with RICE

Drain well one 4½-oz. can SEA HAVEN Tiny Shrimp and blend contents with can Heinz Condensed Cream of Mushroom Soup. Heat in saucepan, adding Curry Powder to taste. Serve on top of layer of cooked rice from 5-oz. package of Minute Rice. Quick, Thrifty and Tasty. Serves 2 to 4.

Minute
Rice

CURRIED SALMON with RICE

Substitute ½-lb. can of RED BREAST Fancy Cohoe (Silver) Salmon for the 4½-oz. can of Shrimp, using the flavorful nutritious oil of the salmon. Quick and tasty. Tastes like more! Serves 2 to 4.

PACIFIC OCEAN TINY SHRIMP

SEA HAVEN Tiny Shrimp are taken on the continental shelf under the Pacific Ocean, 30 miles offshore in the cold, crystal clear clean waters of the North Pacific at depths of 50 to 90 fathoms (300 to 540 feet), which assures the flavorful health-giving qualities of this fine high protein sea food.

SEA Haven Tiny Shrimp are packed by the KAAKINEN FISH COMPANY, Ed Kaakinen, President, a pioneer in the packing of this fine shrimp delicacy; and for 25 years a packer of excellent reputation, specializing in oysters, crabs and other fancy Pacific Coast sea foods.

QUICK — THRIFTY — TASTY — NOURISHING

Established 1919

Purveyors to the Epicurean World
Yours Faithfully F·A·G
FINE SEA FOODS

F. A. GOSSE COMPANY

Sales Managers for Canners of Salmon and other Delicious Sea Foods

MAIN 2-0475 EXCHANGE BUILDING, SEATTLE 4, WASHINGTON *Cable Address:* FAGOS, SEATT

1957-CANNED SALMON PACK OF COASTAL AREAS-1957

COMPANY	CANNERY LOCATION	CHINOOK or KING 1-lb. Talls	CHINOOK or KING ½-lb. Flats (8 doz.)	CHINOOK or KING Total (Full Cases)	BLUEBACK or SOCKEYE ½-lb. Flats (8 doz.)	BLUEBACK or SOCKEYE ¼-lb. Flats (48-lbs.)	BLUEBACK or SOCKEYE Total (Full Cases)	SILVER or COHO 1-lb. Talls	SILVER or COHO ½-lb. Flats (8 doz.)	SILVER or COHO Total (Full Cases)	CHUM 1-lb. Talls	GRAND TOTAL (Full Cases)	
WASHINGTON													
Harbor Seafoods	Bay Center	...	..	..	...	...	..	...	(1) 15	15	.	(1) 15	1
Mohawk Packing Co.	Moclips	6	...	6	(2) 1,108	600	1,708	16	..	16	694	2,424	2
Strand Fisheries	Hoquiam	..	...	...	290	162	452	...	...	..	...	452	3
TOTAL WASHINGTON COAST		6	...	6	1,398	762	2,160	16	15	31	694	2,891	
CALIFORNIA													
Tom Lazio Fish Co.	Eureka	...	159	159	...	...	...	...	168	168	..	327	1
TOTAL COASTAL AREAS		6	159	165	1,398	762	2,160	16	183	199	694	3,218	

NOTE:- No canned salmon pack was reported on Oregon coast in 1957.

(1) Willapa fish, custom-canned in Seattle.
(2) Includes 128 full cases of "tips"

y in 1957 saw the American fleet et slightly the better of the division, result of the difficulty in getting a roper share of the run for the Ca-adian gillnetters.

It just wasn't a gillnet year in 1957, hether for Canadians or Americans. his was due to the fact that the fish enerally were small, the high percenge of small size 3-year-olds bringg the average down. Thus the run ended to pass through the gillnets. s the last Canadian fishermen to get a chance at them are all gillnetters, the run passed upstream to the spawning grounds with the Canadians somewhat short of equality of catch.

● Coastal salmon canning in the Pacific Northwest in 1957 was down to a nominal operation with continuation of the trend toward concentration of the coastal deliveries at Astoria for canning.

Actually, there was no salmon canning operation on the Oregon coast, and only one each in Washington and California. Total production of these coastal areas was only 3,218 cases, of which 2,160 cases consisted of Washington Bluebacks, the local Sockeye species running to the Quinault and Queets Rivers of the Washington coast.

This was a substantial proportionate reduction from the previous year, when the coast areas produced 10,265 cases, of which 5,076 cases were Bluebacks.

CANNED SALMON PACK OF COASTAL AREAS

ear	WASHINGTON Blueback	WASHINGTON Chinook	WASHINGTON Silver & Steelhead	WASHINGTON Chum & Pink	WASHINGTON Total Full Cases	OREGON Chinook	OREGON Silver & Steelhead	OREGON Chum	OREGON Total Full Cases	California TOTAL Full Cases	GRAND TOTAL Full Cases	Year
919	1,244	5,029	17,174	39,995	63,442	26,089	43,114	7,081	76,284	22,766	162,492	1919
920	235	921	405	26	1,587	30,571	4,490	...	35,061	21,055	57,703	1920
921	2,590	2,010	4,897	5,281	14,778	15,632	122	...	15,754	10,376	40,908	1921
922	26,491	2,573	13,354	10,939	53,357	12,270	11,769	2,248	26,287	9,700	89,344	1922
923	10,454	1,794	5,172	38,523	55,943	10,526	22,606	14,279	47,411	6,000	109,354	1923
924	6,778	1,506	5,493	32,760	46,537	16,351	30,449	14,603	61,403	12,936	120,876	1924
925	4,821	3,810	6,679	35,342	53,276	22,404	18,872	14,410	55,686	22,339	131,301	1925
926	2,720	2,441	3,182	17,377	25,720	19,130	7,033	4,838	31,001	11,537	68,258	1926
927	5,260	4,195	1,983	25,452	36,890	17,456	13,390	181	48,619	15,585	101,094	1927
928	2,000	52	415	34,109	37,031	5,411	8,136	5,500	19,047	4,237	60,515	1928
929	4,449	213	1,158	35,699	41,519	4,700	2,313	8,047	15,060	2,774	59,353	1929
930	21,536	49	2,160	11,846	35,519	11,252	981	...	12,233	5,171	52,995	1930
931	8,476	61	501	11,225	20,263	4,234	...	8,600	12,834	12,280	45,377	1931
932	14,263	308	1,152	22,236	37,959	8,524	...	...	8,524	780	47,263	1932
933	6,754	845	424	7,735	15,758	7,150	...	500	7,650	2,149	25,557	1933
934	3,323	2,344	1,453	15,370	22,490	4,100	...	2,000	6,100	820	29,410	1934
935	6,217	3,685	10,009	7,351	27,262	2,500	...	2,400	4,900	874	33,036	1935
936	705	1,137	1,883	16,038	19,763	...	...	9,500	9,500	...	29,263	1936
937	2,865	176	82	7,932	11,055	2,400	...	...	2,400	147	13,602	1937
938	1,559	...	....	13,173	14,732	...	...	...	..	...	14,732	1938
939	...	...	...	6,381	6,381	...	...	2,200	2,200	...	8,581	1939
940	138	23	504	9,142	9,807	647	643	1,000	2,290	...	12,097	1940
941	24	...	...	27,428	27,452	1,000	2,500	5,400	8,900	1,125	37,477	1941
942	1,235	...	...	17,492	18,727	1,450	200	9,000	10,650	...	29,377	1942
943	...	100	402	5	507	1,038	...	...	1,038	767	2,312	1943
944	...	750	161	132	1,043	1,961	2,567	...	4,528	864	6,435	1944
945	...	4,005	2,096	5,287	11,388	...	...	...	...	2,755	14,143	1945
946	3,694	2,398	5,185	17,225	28,502	16,104	4,806	663	21,573	5,034	55,109	1946
947	12,450	3,014	13,023	10,060	38,547	7,383	8,379	...	15,762	13,917	68,226	1947
948	4,021	1,805	12,060	8,642	26,528	7,553	7,052	...	14,605	11,681	52,814	1948
949	7,577	419	3,856	6,285	18,137	827	55	...	882	...	19,019	1949
950	3,969	2,755	8,034	12,902	27,660	3,190	4,817	...	8,007	1,801	35,667	1950
951	2,643	1,495	4,161	12,597	20,896	500	50	...	550	707	22,153	1951
952	877	1,807	5,267	15,000	22,951	184	1,011	...	1,195	2,042	26,188	1952
953	455	642	320	11,141	12,558	...	...	...	...	436	12,994	1953
954	4,240	5	58	11,755	16,058	...	...	...	...	2,162	18,520	1954
955	2,798	784	442	7,667	11,691	...	...	...	...	847	12,538	1955
956	5,076	2,637	163	2,389	10,265	..	...	...	...	694	21,524	1956
1957	2,160	6	31	694	2,891	...	...	...	...	327	3,218	1957
verage	3,382	1,235	3,439	8,907	16,964	1,225	[illegible]	.	2,524	[illegible]	[illegible]	verage

NOTE:- All figures indicate "Full Cases" on a common basis of 48 lbs. net, equivalent to 96 Halves or 192 Quarters. For some years a few Puget Sound Pinks are included with Chums in the Washington Coast pack. A few Steelheads are sometimes canned in these areas. Where they occur, they are included with Silvers. The California pack consists almost entirely of Chinooks, but sometimes includes a few Silvers. "Average" is for the last ten years

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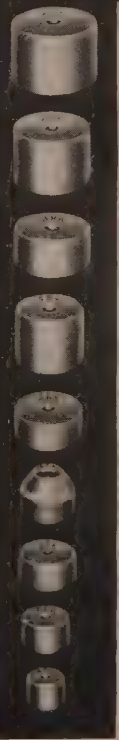

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Chinooks are Scarce

Columbia River salmon canning in 57 produced 132,902 cases, being cond lowest in the history of the hery. Only in 1954, when the pack as 119,057 cases, was production naller. Not since 1951 has the Colnbia, once the greatest salmon river the world, produced above 200,000 ses.

Chinook salmon production dipped ain on the Columbia River in 1957 ter two years of relatively favorable hing. The pack in the principal urce of this largest species of Paci- salmon was down to 87,025 cases, pping below 100,000 cases for the urth time in history—all of them ing within the past decade.

Cohoes were the only strong species the Columbia, where there was an ceptionally good run of big fish, ving a pack of 28,669 cases, the est since 1952 and well above the -year average.

Chums were weak at 4,704 cases.

The year 1957 was one of transion in the Columbia River salmon shing picture, for it was the first ear since the dawn of history that e Indians have not fished at Celilo alls, which are now no more, having een engulfed in the pool rising above he Dalles dam on the Columbia.

Just what the effect of the eliminion of the Celilo fishery will be in e long run, no man now may tell.

In this first year there can be no oubt that elimination of the Indian shery resulted in a lower pack—and higher escapement. In the future, ter four or five years, this escapeent may be reflected in a greater n; providing always that other dams d other fisheries have not reversed e favorable trend.

Unfavorable trend in the Columbia iver fishery was manifest from the rst of the season, the catch during e May open period foretelling the wer productivity which was to be evident later.

However, the fishermen found good ason for the shortage in the escapeent counts over Bonneville Dam, hich showed exceptionally large mbers of Chinooks migrated up the dders April 29 and 30 and May 1, e run thus having passed up the ver just before the opening of the fishery.

Catches were relatively satisfactory at the opening of the season, but fell off to nominal levels within a few days.

To late June the catch on the Columbia was running about two-thirds of that to comparable date in the preceding year. The July period of fishing was a severe disappointment with very low yield except in the middle river section; and even there it was not good.

August redeemed a serious situation to some degree, however. The run in that month was better sustained than it had been for a number of years and fishermen and operators were able to recoup some of the deficit.

● Despite the extremely poor output during much of the 1957 Columbia River season, biologists reported a continued increase in the summer *run*, as distinguished from the *catch*. In short, the escapement was *good*, with more fish on the spawning grounds and to the hatcheries as assurance for the future.

Researchers estimated that the summer section of the run consisted of 197,000 fish, the largest number to enter the Columbia in this particular segment of the run since 1939. In 1945 this run was at its lowest ebb, with only 53,000 fish estimated. The commercial fishery was estimated to have taken 31% of the total 1957 summer run.

The run of Bluebacks, which is the local Columbia River term for the Sockeye or Red species of salmon, was estimated at 156,000 fish, with the commercial fishery taking 73,000, the escapement of 83,000 being counted over Bonneville Dam.

● While balance cannot yet be struck between the effect of building another dam on the main stem of the Columbia, that at The Dalles, and the elimination of the Indian fishery at Celilo, management officials and biologists now have positive counts of the actual escapement, as the number of fish passing above Bonneville will no longer be subject to a commercial fishery.

● Division of the Columbia River canned salmon pack of 1957 between

	COMPANY	CANNERY LOCATION	CHINOOK							SILVERSIDE			BLUEBACK	CHUMS	STEELHEAD TROUT			GRAND TOTAL ([illegible])	
			Fancy				Other Grades												
			1-lb Flats & Ovals	1/2-lb Flats & Ovals	1/4-lb Flats & Ovals	TOTAL	1/2-lb Flats etc § (all cases)	1/4-lb Flats (48 lbs.)	TOTAL	1/2-lb Flats ([illegible])	1/4-lb Flats ([illegible])	TOTAL	1/2 & 1/4-lb Flats ([illegible])	[illegible] ([illegible])	[illegible] ([illegible])	1/4-lb Flats ([illegible])	TOTAL		
1	Barbey Packing Corporation	Astoria, Ore		6,123		6,123	1,948		1,948	574		574			1,628		1,628	10,273	1
2	Chinook Packing Company	Chinook, Wash.	.	2,464		2,464	2,387		2,387	1,140		1,140	220	( ) 544				6,755	2
3	Columbia River Packers Assn.	Astoria, Ore	.	21,047	2,106	23,153	(2) 10,701	309	11,010	6,875	7,852	14,727	(3) 1,092	(4) 498		3,977	3,977	54,457	3
4	Cowlitz Fish Company	Kelso, Wash.	.	(5) 678		678	(6) 2,124		2,124	46		46	71	213				3,132	4
5	Keystone Packing Company	Ilwaco, Wash.	. .	(7) 1,021		1,021	(8) 626	...	626	.	326	326	32				. .	2,005	5
6	New England Fish Company	Chinook, Wash.*	..	3,471	.	3,471	3,287	...	3,287	692	. .	692	208	(9) 352	.	...	. ..	8,010	6
7	Point Adams Packing Company	Hammond, Ore.	291	3,719	1,387	5,397	(10) 2,624	289	2,913	2,597	1,980	4,577	(11) 1,131	(1) 1,140	437	336	773	15,931	7
8	Portland Fish Company	Portland, Ore.	..	(12) 3,974	733	4,707	1,504	131	1,635	2,121	1,992	4,113	(13) 462	(14) 2,812	(12) 200	.	200	13,929	8
9	Union Fishermen's Co-Op. Pkg. Co.	Astoria, Ore	(15) 591	7,572	1,417	9,580	4,490	11	4,501	1,878	596	2,474	(16) 825	5	842	183	1,025	18,410	9
	TOTAL*		882	50,069	5,643	56,594	29,691	740	30,431	15,923	12,746	28,669	4,041	5,564	3,107	4,496	7,603	132,902	

NOTES:- §Unless otherwise noted, figures for Bluebacks and Chums represent Halves (basis 8 doz.). Other items in these columns are: Blueback Quarters (48 lbs.), (3) All #1/4, (11) Includes 605, (13) 268; (16) 557; Chum #1 Talls, (1) All Talls; (4) Incl. 33, (9) 270. The Chum column also includes some Pink Halves: (4) 465 cs., (9) 82, (14) 313.

OVALS included with other items are: 1-lb., (15) 104 cs. fcy. Chin.; 1/2-lb.: (5) 40 cs. fcy. (6) 26 choice, (7) 7 fcy., (12) 733 fcy. & 99 Steelhead.

The Half-Pound column, "Other Grades" Chinooks, includes the following #1 Talls; (2) 137 cs., (3) 129, (10) 142

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SALMON

COLUMBIA RIVER

he two states sharing the stream howed a heavy preponderance in avor of Oregon, which packed 112,400 cases of the river's 132,902-case otal. Oregon value was $4,661,531 out of the river's $5,482,646.

Species valuation in the Columbia River pack of 1957 breaks down as ollows: Chinook, $3,898,952; Blueback (Sockeye), $201,018; Silver, $993,804; Steelhead, $270,242; Chum, $96,270; Pink, $22,360.

Presence of Pinks in the pack is accounted for by the troll catch of this species in the coastal waters of the ocean outside the Columbia, the river itself not being entered by the Pink salmon run.

- The Columbia River salmon industry continued in 1957 its courageous fight against the construction of power dams which would needlessly impair the salmon resource of that stream, once the greatest salmon river in the world.

To early 1958 they had been moderately successful in resisting the trend, although the Ice Harbor dam on the Snake River, main tributary

COLUMBIA RIVER CANNED SALMON PACK

Salmon canning on the Columbia River commenced in 1866, with a pack of about 4,000 cases valued at $64,000; but no segregation by species is available prior to 1889. Production increased rapidly to a peak of 629,400 cases in 1883, valued at $3,147,000; then fell to 356,000, valued at $2,124,000, in 1887; the average output for intervening years being 351,091 cases, valued at $2,066,227.

EAR	# of Can-neries	CHINOOK		BLUEBACK		SILVERSIDE		CHUM or KETA		STEELHEAD TROUT		TOTAL		YEAR
		Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value	
888	28	...	...	...	...	...	...	...	...	...	...	372,477	$2,234,862	1888
889	21	266,697	$1,600,182	17,797	$101,051	...	...	...	...	25,391	$108,587	309,885	1,809,820	1889
890	21	335,604	1,946,087	57,345	290,069	...	...	...	...	42,825	171,300	435,774	2,407,456	1890
891	22	353,907	2,038,566	15,482	284,242	...	...	...	...	29,564	118,156	398,953	2,440,964	1891
892	24	344,267	1,996,388	66,547	372,909	4,176	$20,880	...	...	72,348	288,892	487,338	2,679,069	1892
893	24	288,773	1,559,374	30,459	152,295	29,107	116,428	2,311	$6,933	65,226	260,904	415,876	2,095,934	1893
894	24	351,106	1,896,976	43,814	224,430	42,758	171,032	...	...	52,422	209,688	490,100	2,501,126	1894
895	24	444,909	2,428,658	18,015	86,523	99,601	329,683	22,493	62,591	49,678	203,542	634,696	3,110,997	1895
896	24	370,943	1,804,511	16,983	81,518	44,108	141,145	...	...	49,663	198,652	481,697	2,261,826	1896
897	22	432,753	1,804,221	12,972	51,888	60,850	197,762	...	...	46,146	165,440	552,721	2,219,311	1897
898	23	329,566	1,490,394	66,670	300,015	65,431	222,465	...	...	26,277	60,352	487,933	2,073,226	1898
899	17	255,824	1,458,175	23,969	134,723	29,608	112,055	11,379	33,836	11,994	39,186	332,774	1,777,975	1899
900	16	262,392	1,821,258	13,162	92,184	44,925	202,163	17,696	63,706	20,597	102,985	358,772	2,282,296	1900
901	.	...	...	...	...	...	...	...	...	...	...	390,183	1,942,660	1901
902	14	270,580	1,428,743	17,037	86,465	10,532	44,732	10,401	41,604	8,593	42,965	317,143	1,644,509	1902
903	16	301,762	1,610,614	8,383	42,867	12,181	49,869	10,000	37,500	7,251	36,255	339,577	1,777,105	1903
904	20	320,378	1,944,690	12,911	78,048	31,254	118,357	20,693	52,691	9,868	48,892	395,104	2,242,678	1904
905	19	327,106	1,962,636	7,768	46,608	26,826	114,011	25,751	65,206	9,822	49,110	397,273	2,237,571	1905
906	19	311,334	1,868,007	7,816	54,712	41,446	124,338	27,802	69,505	6,500	32,500	394,898	2,149,062	1906
907	19	258,433	...	5,504	...	31,757	..	22,556	...	5,921	...	324,171	1,763,490	1907
908	14	210,096	...	8,581	...	31,432	...	16,884	...	10,726	...	253,341	1,380,708	1908
909	15	162,131	1,203,546	27,908	214,561	42,178	185,070	24,542	57,115	17,283	99,796	274,087	1,760,088	1909
910	15	244,285	1,882,137	6,234	34,287	68,922	363,688	66,538	232,883	5,436	31,203	391,415	2,544,198	1910
911	15	405,862	2,204,185	5,988	47,904	79,416	549,478	53,471	203,198	8,594	47,399	543,331	3,052,164	1911
912	15	220,317	1,988,526	8,210	85,384	31,842	177,248	18,699	46,590	6,958	22,108	285,666	2,319,856	1912
913	15	192,116	1,664,670	11,152	93,677	40,969	175,412	13,303	29,486	8,939	49,142	266,479	2,012,387	1913
914	17	289,464	2,573,502	35,311	376,924	69,769	380,666	49,285	205,541	10,792	59,356	454,621	3,595,989	1914
915	19	406,486	3,694,361	5,459	56,707	33,336	173,234	86,530	251,632	26,723	129,358	558,534	4,305,292	1915
916	20	395,166	3,572,203	3,790	27,288	52,084	335,114	77,766	307,483	18,999	118,987	547,805	4,361,075	1916
917	20	403,637	5,023,529	7,968	111,552	64,299	700,680	53,659	386,596	23,783	292,538	555,218	6,530,939	1917
918	20	400,952	5,222,983	37,833	605,328	98,145	1,072,843	29,846	215,669	24,605	350,071	591,381	7,466,924	1918
919	21	392,125	5,455,550	7,268	145,360	90,728	1,142,767	75,493	541,989	14,414	205,254	580,028	7,490,920	1919
920	22	420,467	5,661,580	2,617	62,808	27,024	257,806	18,792	99,564	12,645	116,859	481,545	6,198,617	1920
921	20	267,582	3,761,321	6,045	120,900	34,381	233,372	4,821	19,791	10,142	68,266	323,241	4,203,649	1921
922	23	237,230	3,724,393	30,743	614,860	90,437	633,935	8,844	47,130	24,920	186,675	392,174	5,206,993	1922
923	23	289,586	4,967,657	38,309	766,180	101,554	673,954	25,508	135,168	25,968	187,965	480,925	6,730,924	1923
924	22	293,716	4,508,236	7,366	129,840	112,308	992,865	57,748	303,356	29,734	285,107	500,872	6,219,404	1924
925	21	250,809	5,423,129	5,650	106,220	113,554	1,488,855	55,812	272,398	14,637	177,866	540,452	7,468,468	1925
926	21	295,302	4,744,131	21,736	434,720	97,142	1,027,597	32,853	181,216	32,690	356,418	479,723	6,744,064	1926
927	22	339,446	5,559,202	6,887	147,378	74,879	585,816	68,449	425,240	30,148	311,070	519,809	7,028,705	1927
928	24	251,404	4,355,218	4,814	100,131	49,136	478,355	124,953	747,619	16,339	222,139	446,646	5,903,462	1928
929	21	242,938	4,234,214	10,072	181,296	90,684	917,561	54,619	314,928	23,804	257,025	422,117	5,905,024	1929
930	21	281,346	4,092,810	9,823	194,460	110,430	1,156,042	11,371	43,324	16,535	171,541	429,505	5,658,177	1930
931	20	294,798	3,754,929	4,125	66,000	39,268	247,878	3,518	11,754	11,990	110,429	353,699	4,191,000	1931
932	15	216,511	2,023,390	2,795	33,540	46,492	280,853	17,261	44,879	13,132	91,924	296,191	2,474,586	1932
933	14	251,157	2,719,303	6,921	96,894	36,430	263,190	24,398	107,351	17,805	142,440	336,711	3,329,178	1933
934	13	251,068	2,630,152	6,869	82,428	65,428	536,731	24,455	92,608	14,901	121,000	362,721	3,462,919	1934
935	10	205,870	2,479,450	1,302	17,619	95,184	725,868	15,495	59,499	14,888	122,846	332,739	3,405,282	1935
936	11	220,188	2,964,058	9,837	137,718	36,541	303,263	30,597	110,149	19,282	317,867	316,445	3,833,055	1936
937	11	291,343	4,256,819	7,526	126,436	69,801	725,996	30,592	138,309	17,568	189,734	416,830	5,437,294	1937
938	10	173,892	2,707,267	13,889	260,369	67,257	630,364	37,704	143,275	15,248	152,480	307,990	3,893,755	1938
939	10	207,595	3,336,206	5,301	102,359	69,082	730,549	15,201	75,416	25,293	320,025	322,472	4,666,141	1939
940	11	244,570	3,785,681	23,974	471,530	59,737	623,681	25,282	125,420	33,436	373,514	386,999	5,379,826	1940
941	11	328,609	5,558,254	33,070	661,400	35,727	481,834	83,144	572,994	33,162	453,502	513,712	7,727,984	1941
942	12	274,750	5,692,929	23,256	625,230	26,541	497,070	118,051	911,538	21,803	429,678	464,401	8,156,445	1942
943	11	130,373	3,094,505	2,880	77,586	5,707	61,065	12,439	112,421	16,261	323,874	167,660	3,669,451	1943
944	10	163,047	3,714,591	758	20,342	12,210	137,072	1,525	11,590	19,222	375,838	196,762	4,259,433	1944
945	8	132,014	3,095,228	112	3,001	22,154	244,060	1,032	8,848	19,314	363,068	*175,670	3,723,456	1945
946	11	159,872	5,940,740	9,726	369,588	6,883	206,490	§15,617	247,392	17,373	510,720	§209,471	7,274,939	1946
947	10	250,318	8,613,000	15,079	664,000	42,789	1,278,000	17,121	252,000	21,999	650,000	347,306	11,457,000	1947
948	12	235,310	9,342,000	3,339	147,000	39,425	1,099,000	26,201	498,000	19,977	615,000	324,242	11,701,000	1948
949	12	133,347	3,682,000	**6,630	225,000	16,740	415,000	12,386	186,000	9,019	221,000	178,122	4,729,000	1949
950	11	136,635	4,964,201	3,630	146,687	29,507	939,296	12,952	234,457	10,266	360,830	192,990	6,645,471	1950
951	10	143,046	5,497,305	4,552	186,543	29,099	841,234	11,566	192,850	14,862	469,615	203,125	7,187,547	1951
952	9	95,353	3,506,181	9,824	413,774	29,701	875,380	13,759	214,837	18,979	612,987	167,616	5,623,159	1952
953	8	97,320	3,267,303	3,014	127,791	24,219	676,237	9,775	130,062	19,420	616,621	153,199	4,823,332	1953
954	8	71,993	2,550,257	8,485	336,212	12,670	367,000	12,530	190,484	13,379	458,303	119,057	3,902,256	1954
955	8	117,782	4,392,455	3,010	131,890	20,254	667,659	*6,774	126,875	13,737	462,857	*161,557	5,781,736	1955
956	8	112,076	4,328,650	19,346	845,066	22,031	656,182	***5,497	130,233	8,171	295,294	167,121	6,255,425	1956
957	8	87,025	3,898,952	4,041	201,018	28,669	993,804	§5,564	118,630	7,603	270,242	132,902	5,482,646	1957
ver	9	122,983	4,542,930	6,587	276,098	25,232	753,079	11,700	202,243	13,541	438,275	179,993	6,213,157	Aver

NOTES:- "Average" is for the last ten years. Figures for the last year in this table are from PACIFIC FISHERMAN's compilation. Those for previous years have been revised from official data. *Includes 1,044 cases of Pinks canned from Puget Sound Fish. ** Mostly Quinault River Bluebacks. *** Includes 588 cases of Pinks. §Includes 860 cases of Pinks

1957 -RECAPITULATION OF ALASKA CANNED SALMON PACK - 1957

DISTRICT	RED or SOCKEYE				PINK			CHUM				Medium RED or COHO			KING or CHINOOK			GRAND TOTAL (Full Cases)
	1-lb Talls & Flats	4-lb Flats	½-lb & ¼-lb Flats (8 doz.)	TOTAL	1-lb Talls etc	½-lb Flats (8 doz.)	TOTAL	1-lb Talls	4-lb Flats	½-lb Flats (8 doz.)	TOTAL	1-lb & 4-lb Talls & Flats	½-lb & ¼-lb Flats (8 doz.)	TOTAL	1-lb & 4-lb Talls & Flats, etc	½ & ¼-lb Flats (8 doz.)	TOTAL	
Western Alaska	(a) 514,393	4,129	(b) 47,358	565,880	2	.	2	28,718	20	4,354	33,092	(c) 3,671	2,253	5,924	(a & c) 27,551	(b) 8,317	35,868	640,766
Central Alaska	(d) 74,985	4,021	101,442	180,448	(e) 310,304	24,294	334,598	409,366	12,899	21,134	443,399	(d) 25,522	3,808	29,330	(d) 7,274	8,621	15,895	1,003,670
Southeast Alaska	42,045	1,970	34,815	78,830	(f) 365,954	38,906	404,860	334,534	20,870	18,822	374,226	(f) 41,520	(g) 11,035	52,555	(f) 1,080*	273	1,353	911,824
TOTAL ALASKA	631,423	10,120	183,615	825,158	676,260	63,200	739,460	772,618	33,789	44,310	850,717	70,713	17,096	87,809	35,905	17,211	53,116	2,556,260

NOTE:- Salmon shipped, frozen or fresh, from the three regions of Alaska and canned elsewhere, is included, as far as possible, in the above figures for the regions of origin.
Can sizes not separately tabulated are included with others, as follows:
POUND FLATS, with Talls: (a) 2,093 cases Reds & 783 Kings; (d) 5,163 Reds & 449 Kings.
FOUR POUND CANS, with Talls: (c) 698 Cohoes & 1,104 Kings, (e) 7,535 Pinks & 4,653 Cohoes;
(f) 6,972 Pinks, [illegible],187 Cohoes & 349 Kings
QUARTERS, with Halves: (b) 51 Reds & 36 Kings, (g) 53 Cohoes
*71 cases Steelhead Talls are included with Kings

of the Columbia, advanced toward the day when it may impose an additional barrier to the passage of the salmon.

The controversy swung to the Snake and Salmon in 1957 in an effort to prevent the blocking of the Salmon River, which is the last remaining unimpaired natural spawning ground of the spring run of Chinooks.

● Despite the relatively short July run of Chinook salmon, following an excellent spring showing, the Chinook salmon escapement to the spawning grounds of the Columbia River above the Rock Island dam near Wenatchee, Wash., was more than 50% above the best year recorded since the dam was constructed.

The escapement figures for 1957 were approximately double those of the preceding season.

These sharp increases in seeding are attributed in considerable degree to the cessation of the Indian dip-net fishery at Celilo Falls on the Columbia River, where the Indians under protection of rights granted by ancient treaty took large quantities of salmon above the upper limit of the commercial fishery permitted to others.

The Celilo Falls were flooded by the pool accumulated behind The Dalles Dam on the Columbia, the Indians being compensated by the Federal government for the loss of their fishery rights.

● Spring run to the Columbia River in 1957 was good, indicating the careful observers that the closures designed to permit escapement of spring-run spawners were bearing fruit in larger returns which promised gradual rehabilitation of this finest - quality early race.

The mid-summer season was acutely disappointing in the number of salmon produced, although escapement upriver was good, indicating that water conditions, probably the residual effect of the freshet, limited the effectiveness of the gear and thus encouraged escapement.

The late - season catch was better volume-wise than in recent years, but showed a fall-off in quality reminiscent of the August run of a number of years ago, and thus making rather sharp contrast with what in recent seasons has come to be accepted a new standard of August quality.

In keeping with the troll salmon results of the 1957 season, the Columbia River fishery for Silver salmon was excellent, with the fish not only numerous but also large and fine in quality.

Ocean Net Fishing For Salmon Abolished

● Action of fundamental importan in the administration of the salm resource on a continental basis, distinguished from regulation on state or national basis, was taken 1957 by Canada, the United Stat Washington, Oregon and Californ all acting independently, but all the same end.

This action, which involved leg lation in Congress and the three P cific state legislatures, rendered oce net fishing for salmon illegal by t citizens of the states and nations co cerned.

In short, the development of ocean gillnet fishery for salmon, whi had started to a significant degree 1956, was cut short by united acti of the North American governmen involved.

The prohibition was of wide si nificance not only because of t international harmony and unity thought which it disclosed; not on because of the vigor of the acti and its sweeping character; but al because it was accomplished witho sacrifice of the rights and respon bilities of the individual coastal stat over the ocean fisheries off the coasts.

● Primary reasons for this restricti action by the Pacific States, t United States and Canada were thre

1. Under the International Nor Pacific Fisheries Convention t United States and Canada mainta that the salmon resource of the ea ern Pacific already is exploited the maximum degree consistent wi maintenance of a sustained yield fro year to year; and to permit a ne fishery to develop and exploit th resource would not be consistent wi this treaty declaration.

2. When a salmon population feeding at sea the races are so inte mingled that they cannot be d tinguished. When such a populati is exploited, before its members ha entered upon their spawning migr tions to their home streams, manag ment in the interest of proper co servation is not possible because see ing of specific areas cannot be pr vided with any degree of certaint

3. Under the North Pacific treat as a condition of their responsibili for the management of the abstain stock of salmon entrusted to the the United States and Canada "agr to *continue* to carry out the necessa conservation measures". If they pe mitted an ocean fishery to devel where none had prevailed before, t North American nations could n contend that their policies were su

BONNEVILLE DAM SALMON ESCAPEMENT

Year	Chinook	Steelhead	Silver	Blueback	Chum	Total	Year
	271,799	107,003	15,185	75,040	2,117	471,144	1938
9	286,216	121,922	14,382	73,382	1,168	497,070	1939
0	391,588	185,161	11,917	148,805	1,729	739,200	1940
1	461,458	118,087	17,911	65,745	5,270	668,471	1941
2	403,938	151,345	12,401	55,475	1,865	625,024	1942
3	313,123	92,131	2,547	39,845	790	448,436	1943
4	240,763	100,521	4,208	15,071	954	361,517	1944
5	297,488	120,144	791	9,501	727	428,651	1945
6	445,743	142,548	3,897	74,354	1,178	667,720	1946
7	480,376	135,434	11,174	171,139	202	798,325	1947
8	419,555	139,062	4,081	131,541	3,636	697,875	1948
9	277,697	119,285	1,004	51,444	2,028	451,458	1949
0	357,375	114,079	10,153	77,993	1,069	560,669	1950
1	331,788	140,689	5,201	169,428	1,051	648,157	1951
2	420,879	260,990	7,768	184,654	1,505	875,796	1952
3	332,479	223,915	13,018	235,219	1,728	806,359	1953
4	320,945	176,254	4,062	130,107	1,569	632,937	1954
5	359,853	198,417	3,725	237,748	318	800,061	1955
6	300,915	131,109	6,120	156,418	684	595,246	1956
7	403 869	139,194	4,775	82,915	569	631,322	1957

to "continue" necessary conserva-
on measures.

This concurrent international action
mmitted the two nations to a policy
salmon conservation based on a
rictly coastal fishery for mature sal-
on entering their native streams in
e peak of their size and condition.

Mechanics of the measure differed
mewhat. In the fall of 1956 the
cretary of the Interior's authority
er the fisheries of Alaska was em-
oyed to forbid ocean net fishing
r salmon off the coast of that ter-
ory. In 1957 it was necessary to
tend his authority south to the 49th
rallel in order to prevent possible
t fishing by Americans off the coast
British Columbia.

Canada on its part was able to
rbid ocean net fishing for salmon
administrative declaration and
thout new legislation.

The three Pacific states, by slightly
fferent means, forbade fishing by
eir citizens on the high seas with
lmon nets, or the landing in their
rritory of any salmon caught out-
de territorial waters by means of
ts.

● Aside from its international and conservation aspects, the measures are considered of significance in that they tend to stabilize salmon quality on a basis of full size and maturity.

It should be noted that the ocean fishing restriction applies only to the taking of salmon, and only by means of nets. The long-established troll salmon fishery for Chinook or King and Silver salmon, a principal source of the finest fish for the fresh, frozen and cured trade, is not limited.

Pinks Under First Treaty Year

● The 1957 season was unique so far as Pink salmon are concerned in that it was the first year in which this species came under the administrative control of the International Pacific Salmon Fisheries Commission.

The commission's program in the first year of its responsibility for the Pink salmon resource was devoted primarily to an effort to secure equal division of the catch, to inaugurate a statistical system for control of the resource, and to establish the beginnings of biological study of the run in the Fraser River.

In the initial year total Pink salmon escapement, calculated by the tagging method in which the percentage of tagged fish to the total run above the area of fishery is computed from the proportion of tagged fish found among the total dead salmon after spawning, showed an escapement of 2,242,000 Pink salmon.

The largest spawning was found to be in the main stem of the Lower Fraser, with approximately 1,000,000 spawners. Until the 1957 investigation it had never before been known that there was any considerable main stream spawning of Pinks in the Fraser. Failure to detect this fact through years of cursory study evidently was due to the turbid character of the stream.

The Harrison River, with above 585,000 spawners, was the second area in Pink salmon seeding. The Chilliwack-Vedder system, also in the Lower Fraser area, was fourth with nearly 220,000 fish.

Above Hells Gate, the Thompson River and its tributaries received above 268,000 Pink spawners, which must be considered as the parents of the run to an area with enormous productive possibilities for the future.

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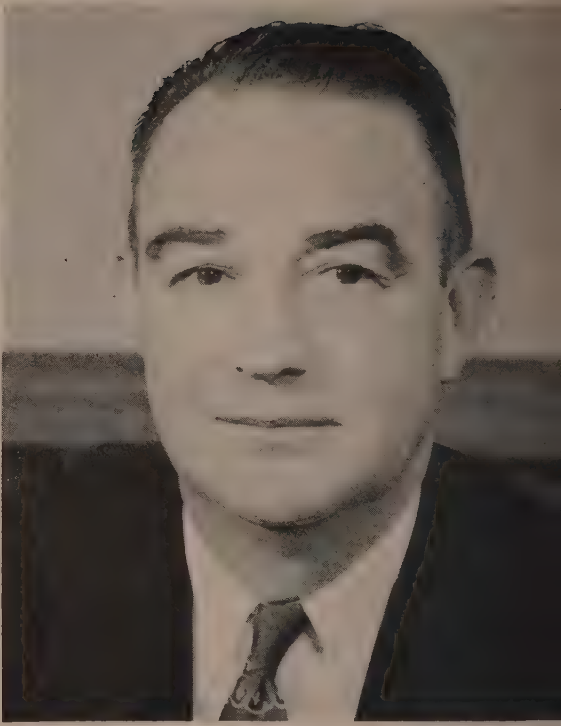

WILLIAM CALVERT, Seattle, Wash.

JOSEPH MARDESICH, Terminal Island, Calif.

● **Mr. Leffler** is Assistant Secretary of the Interior of the United States, with responsibility for the U. S. Fish and Wildlife Service, which thus was accorded in 1957 higher standing in the national governmental organization than it has previously enjoyed. Mr. Leffler is a member of the International North Pacific Fisheries Commission.

● **Mr. Calvert** is president of Intercoastal Packing Co. and Egegik Packing Co.; and is vice president and secretary of San Juan Fishing & Packing Co. and a principal of Peninsula Packers. In 1957 he was elected president of Alaska Salmon Industry, Inc., having served for a number of years as chairman and director of the Alaska Salmon Institute.

● **Mr. Mardesich** is president of the Franco-Italian Packing Co., Terminal Island, Calif., and 1957-8 president of California Fish Canners Association.

1957 -UNITED STATES TUNA PACK- 1957

REGION	(Standard Cases)				
	Albacore	Lightmeat	Standard Cases Total True Tuna	Bonito and Yellowtail	GRAND TOTAL
California - San Diego	727,752	2,584,996	3,312,748	2,131	3,314,879
Los Angeles Area	*1,431,750	4,779.665	6,211,415	4,263	6,215,678
Total California	2,159,502	7,364,661	9,524,163	6,394	9,530,557
Oregon	§ 648,100	...	....	...	648,100
Washington	102,394	...	....	...	102,394
Oregon, Washington and Hawaii	...	** 472,824	....	...	472,824
Total Pacific Northwest & Hawaii	750,494	472,824	1,223,318	...	1,223,318
Atlantic and Gulf States, Puerto Rico and American Samoa	...	**1,106,833	1,106,833	...	1,106,833
GRAND TOTAL U.S. TUNA	2,909,996	**8,944,318	11,854,314	6,394	11,860,708

* Tuna canned in San Francisco and Monterey is included in Los Angeles Area.

**Includes some Albacore.

§ Oregon Albacore includes 946 cases canned in Northern California.

U. S. Tuna Canning Sets a New Record in 1957

● New record for American tuna canning was set in 1957 by the narrowest of margins with a figure of 11,860,708 standard cases.

California of course led by a wide margin with a pack of 9,530,557 cases, virtually the same as the state turned out the year before.

In the Pacific Northwest and Hawaii tuna canning turned out 1,223,318 cases.

Almost as much came from the Atlantic and Gulf states, Puerto Rico and American Samoa, a wide area whose yield for the year was 1,106,833 cases.

Inasmuch as the record pack was produced while the domestic deliveries of tuna were declining by about 12,000 tons, it is obvious that imports of foreign fish made the peak production possible.

● Difficulties beset the California tuna industry throughout 1957, but they were difficulties with a difference from those experienced in other principal fisheries.

In the sardine industry the problem was an elemental one—no fish.

In salmon the situation was similar, although in a much less degree. There it boiled down to this: not enough fish, and those at too high cost.

● The case of tuna was very different. There the difficulties included:

Plenty of fish, but priced too low to be profitable for the fleet;

Abundant market demand, but much of it filled by imported tuna canned in brine and enjoying a preferential tariff to the disadvantage of the standard-packed product in oil;

Governmental pressure which resulted in a Federal Trade Commission consent decree requiring marked modification of long-established practices in the tuna industry's methods of buying and selling tuna fish and canned tuna, and which reacted against effectuation of an international merchandising program for the promotion of tuna, a program which had been suggested at the highest levels of the national government;

Cleavage within the industry itself over the matter of imports of frozen fish for canning;

Foreign affairs, which flared into gunfire late in 1957 after a prolonged period of amicable operations.

Labor disputes which interrupted fishing operations of Southern California fleets.

Fishing Consistently Good

● In marked contrast with the salmon and sardine industries, tuna fishing was uniformly good during 1957, with abundance greater than could be marketed by the fishermen at profitable prices.

This does not mean that the fish were found easily or close at hand, for long cruises were necessary and hard work essential. The fact remains plain, however, that the American Yellowfin and Skipjack fleet could have caught a substantially larger tonnage of these varieties—and of Bluefin also—if the fish could have been sold

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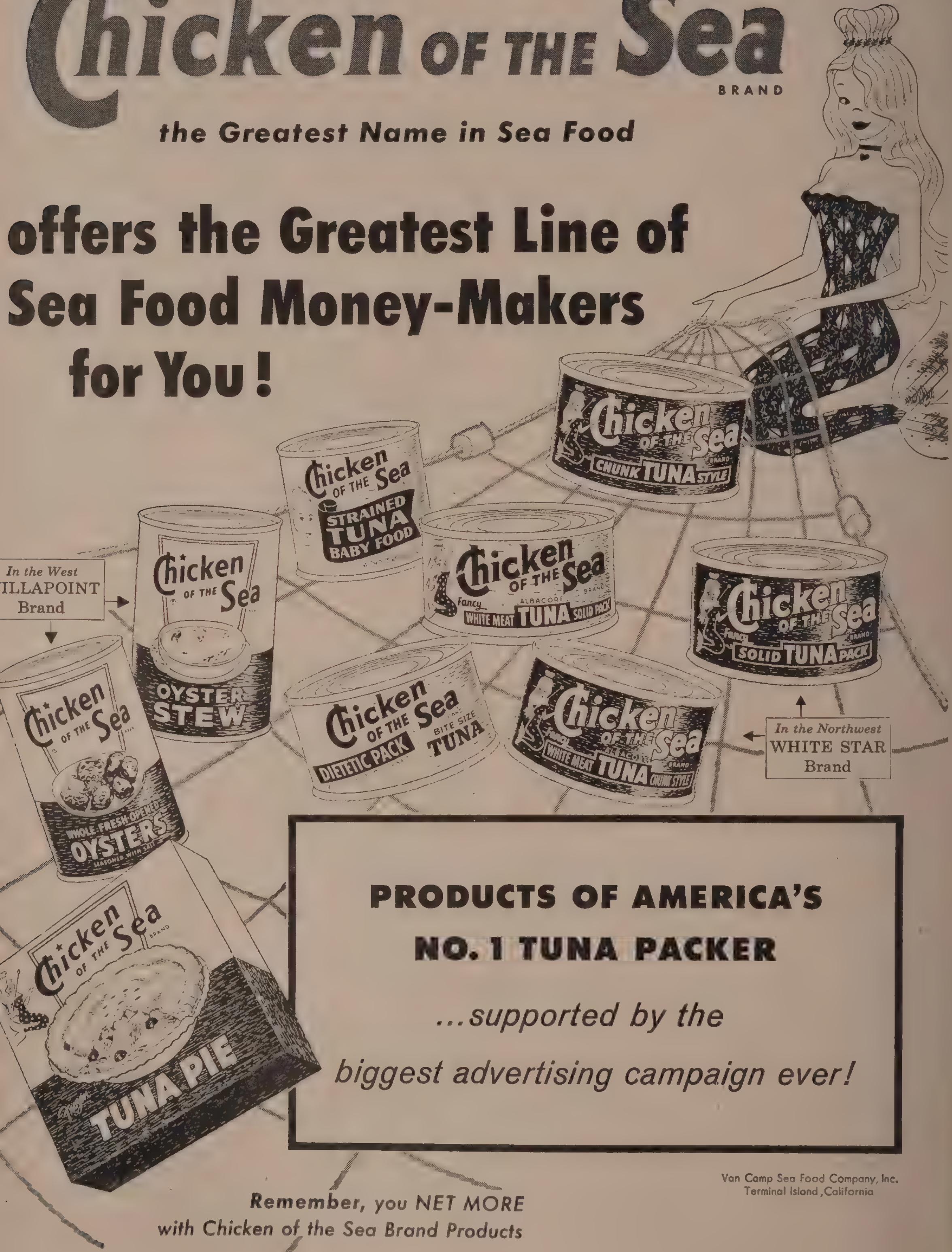
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Deliveries of Tuna in California

(Pounds)

Year	Albacore	Bluefin	Bonito	Skipjack	Yellowfin	Shipments*		TOTAL
						Light Meat	White Meat	
1926	2,469,921	6,526,533	3,121,604	20,951,348	12,564,986			45,634,392
1927	4,579,367	4,898,386	1,718,008	33,805,960	25,934,045			70,935,766
1928	283,321	13,700,870	2,105,903	15,948,104	32,253,206			64,291,404
1929	269,101	7,796,857	2,918,544	27,007,013	37,444,924			75,166,439
1930	283,117	21,921,282	5,164,260	20,485,587	56,654,181			104,508,427
1931	37,322	3,534,030	3,079,673	16,506,761	36,579,480			59,737,266
1932	619,694	1,071,206	2,862,286	21,636,577	36,923,410			63,113,173
1933	487	560,492	2,252,199	16,687,308	51,075,630			70,576,116
1934	171,105	18,357,828	3,232,694	14,830,194	60,913,160			97,474,981
1935	2,447,528	25,173,083	7,896,484	17,197,186	72,294,133			125,008,414
1936	956,771	18,924,883	7,215,916	27,006,105	78,352,644			132,456,319
1937	3,196,770	12,693,922	7,808,070	47,104,092	91,522,458			162,325,312
1938	12,522,594	17,728,031	7,839,993	22,653,631	78,288,144			139,032,393
1939	12,346,858	11,835,715	9,918,875	30,120,891	110,417,801			174,640,140
1940	5,588,670	19,970,268	5,290,928	56,650,155	113,898,209			201,398,266
1941	3,276,257	9,519,012	10,257,602	25,585,468	76,701,760			125,340,099
1942	10,621,193	12,844,564	1,650,689	38,715,182	41,167,441			104,999,069
1943	21,384,864	10,178,170	2,281,884	28,893,784	49,261,328			117,004,030
1944	17,865,866	20,332,011	818,871	29,964,377	62,236,029	972,721**	2,535,547**	134,761,422
1945	21,767,581	20,594,059	2,714,181	33,273,407	86,130,656	1,392,078	60,901	165,932,863
1946	18,064,047	22,031,748	5,625,648	40,877,307	126,425,688	1,028,674	......	214,056,112
1947	13,145,780	20,837,634	13,697,171	52,315,449	149,066,794	1,539,245	269,397	250,871,470
1948	36,425,846	6,528,807	9,135,126	58,752,316	191,635,651	168,544	1,141,747	303,788,037
1949	44,017,014	4,389,471	1,829,541	78,564,030	184,972,285	691,199	254,664	314,718,204
1950	61,746,421	2,738,963	695,614	124,724,565	182,224,422	11,360,744	4,378,420	387,869,149
1951	30,677,931	3,862,418	776,803	115,778,923	160,547,928	16,018,444	17,520,891	345,183,338
1952	49,789,314	4,576,685	2,142,157	84,734,226	178,376,101	11,301,336	22,525,248	353,445,067
1953	33,834,626	9,172,855	3,102,647	122,306,183	132,086,346	16,888,789	46,186,816	363,578,262
1954	26,107,290	21,024,820	2,319,060	153,756,190	119,401,795	47,434,639	38,466,383	408,510,177
1955	29,001,811	13,609,177	136,990	101,837,635	122,291,864	60,072,312	44,844,675	371,794,464
1956	37,042,581	12,625,968	127,614	120,153,222	149,280,994	71,600,590	20,322,775	411,153,744

*These are largely importations into California, but included are some fish caught by California fleet and landed outside the United States.
**Shipments not available prior to 1944.

upon delivery, and at prices which would return a profit to the vessel owners and fishermen.

While Dr. M. B. Schaefer, director of the Inter-American Tropical Tuna Commission, indicates from time to time that increased sustained yield production of the tuna populations fished by the American clipper fleet is not to be expected, through 1957 these fishery had not exhibited the sharp fall-off in rate-of-catch per unit of effort which has marked the Japanese long-line fishing in the central and western Pacific and the Indian Ocean.

Full sustainable productivity of the Skipjack resource apparently has never been approached even in times of heaviest fishing.

In short, the resource which produces the American pack of domestically-caught Lightmeat tuna is in sound condition and capable of providing a larger pack than has thus far been produced.

Albacore is something else again, for the quantity of this species available to the American fishermen is highly variable and may range from glut to failure. Biological research, so far as it has gone, indicates that these wide swings in abundance of Albacore available to the American fleet result from ocean currents, water temperatures, availability of food, and perhaps more obscure influences acting upon the migratory stimuli of the wandering Albacore.

Tuna Auction Introduced

- Selling of landed tuna in Southern

SAN PEDRO CANNED TUNA

(Cases)

YEAR	Yellowfin	Bluefin	Skipjack	Albacore	Tonno	Tuna Flakes	Yellowtail	Bonito	TOTAL
1930	262,278	302,660	82,282	143,748	57,110	11,508	16,505	56,544	932,635
1931	182,115	46,462	166,091	144,796	35,514	12,850	1,292	35,997	625,117
1932	275,263	8,510	101,626	52,215	42,247	11,517	2,447	31,901	525,726
1933	258,982	7,580	74,728	49,391	41,200	10,907	1,389	17,892	462,069
1934	317,846	325,350	71,350	82,182	55,163	22,402	3,716	35,245	913,254
1935	306,202	413,630	88,746	107,501	81,660	33,909	17,123	91,080	1,139,851
1936	343,234	311,987	184,930	53,849	57,797	9,906	17,069	68,335	1,047,107
1937	416,611	188,432	276,165	83,123	136,612	34,534	3,352	85,518	1,224,347
1938	273,365	273,358	151,081	265,034	67,404	47,092	27,440	91,830	1,196,604
1939	578,727	191,456	212,042	281,666	70,022	41,104	11,739	139,502	1,526,258
1940	536,391	267,343	306,447	122,484	124,094	85,459	40,861	65,364	1,548,443
1941	308,886	136,333	109,563	73,024	33,530	40,545	26,241	135,594	863,716
1942	214,391	250,685	128,980	128,670	23,479	39,880	16,427	18,115	820,627
1943	303,881	162,844	88,203	187,052	17,239	120,548	67,780	28,815	976,362
1944	341,687	357,531	105,863	125,632	15,365	234,639	16,611	4,206	1,201,534
1945	460,982	275,116	89,279	148,286	16,198	452,292	3,262	31,366	1,476,781
1946	663,814	304,248	202,729	141,629	....	558,026	15,080	73,509	1,959,035
1947	765,426	342,309	209,281	104,726	7,403	417,644	87,934	220,606	2,155,329
1948	969,732	94,190	200,693	290,811	23,009	477,769	120,257	150,147	2,326,608
1949	614,847	38,142	157,373	289,063	78,821	1,330,358	31,072	18,123	2,557,799
1950	742,815	14,786	266,809	586,683	202,368	2,456,705	10,838	3,757	4,284,761
1951	....	....	1,289,523*	437,408	104,235	1,959,227	....	22,926**	3,813,319
1952	....	....	3,203,906*	844,821	84,821	1,345,665	....	61,081**	5,540,033
1953	....	....	2,922,287	1,044,756	120,625	1,043,893	51,092	52,629	5,235,282
1954	....	....	725,729	699,810	116,011	4,377,438	9,949	17,177	5,946,114
1955	....	....	672,464	903,814	160,694	4,039,030#	224	2,277	5,778,503
1956	....	....	565,289	613,312	122,074	4,717,583#	3,448	530	6,022,236

*Yellowfin, Bluefin and Skipjack not given separately. #Includes Chunks. **Yellowtail and Bonito not given separately.
Cases are standard cases, 48 1/2s.

1957 -CALIFORNIA TUNA PACK BY MONTHS- 1957

(Cases)

	Dec. '56	Jan. '57	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Total Cases 'As they run'	Total Cases Basis 48-½
LBACORE-Whitemeat'															
Solid Pack	39,980	37,659	115,208	127,094	95,640	23,997	36,487	163,207	258,662	156,698	98,442	35,718	43,600	1,192,412	
Standard Pack	...	33	1,227	1,876	...	...	...	...	1,516	2,557	10,122	5,625	...	22,956	
Chunk Pack	12,238	1,057	10,144	7,952	19,976	13,438	3,452	122,460	177,358	135,439	98,296	75,685	39,025	704,282	
Grated & Flakes	7,884	6,530	15,768	23,837	18,272	6,668	6,127	42,066	69,131	43,445	30,810	12,741	2,100	277,495	
Dark & Light	504	...	1,436	788	529	231	1,682	1,384	2,079	675	138	998	...	9,940	
Tonno	...	...	...	...	...	...	128	327	...	...	1,412	275	...	2,142	
Unspecified	5,011	...	78	4,540	3,607	2,062	...	...	5,615	975	'4,523	1,907	25	23,332	
Total: Whitemeat	65,617	45,279	143,861	166,087	138,024	46,396	47,876	329,444	514,361	339,789	243,743	132,949	84,750	2,232,559	2,159,502
GHTMEAT															
Solid Pack	45,136	110,166	102,332	85,280	108,701	105,644	156,106	100,811	52,506	73,895	54,673	46,665	52,010	1,048,789	
Standard Pack	255	2,241	2,620	6,936	5,545	2,142	11,297	11,052	1,043	105	2,612	16,193	18,540	80,326	
Chunk Pack	368,847	524,072	362,974	346,421	433,315	493,709	512,216	615,928	562,821	461,343	320,012	293,187	280,110	5,206,108	
Grated & Flakes	44,995	86,086	61,769	67,354	77,311	86,858	88,824	95,756	74,116	63,317	48,130	40,417	27,200	817,138	
Dark & Light	3,141	3,995	3,128	7,804	7,784	5,047	4,732	5,810	6,961	4,997	4,074	2,969	...	57,301	
Tonno	10,968	13,906	5,585	17,544	18,101	16,690	11,898	12,023	18,848	14,501	18,451	9,794	...	157,341	
Unspecified	11,661	14,361	1,334	7,760	4,215	8,346	7,079	6,932	8,852	7,188	4,764	7,002	9,270	87,103	
Total: Lightmeat	485,003	754,827	539,742	539,099	654,972	718,436	792,152	848,312	725,147	625,346	452,716	416,227	387,250	7,454,226	7,364,661
onito & Yellowtail															
Standard Pack	..	2	40	34	173	203	...	39	. .	..	. .	...		491	
Grated & Flakes	225	291	1,137	1,086	121	341	1,572	...	.	.	405	468	.	5 421	
Chunks	..	..	...	...	112	145			.	225	.	...		482	
Total: Tuna-Like	225	293	1,177	1,120	406	689	1,572	39	...	225	405	468	...	6,394	6,394
AND TOTAL	550 845	800,399	684,780	706,306	793,402	765,521	841,600	1 177,795	1 239 508	965,360	696,864	549 644	472 000	9 693,179	9,53

California took a new course in 1957 when the American Tunaboat Association introduced the practice of sellng its members' deliveries at auction after the manner used the world-over n selling fresh fish at exchanges.

While this method of selling has ong been common in many branches of the fish business, it is not believed o have been used previously in the United States for selling fish for canning purposes.

In that branch of the business the fisherman generally has delivered his fish: (a) at a season price arrived at by negotiation, by announcement of the buyer, or by quotation of a cooperative; (b) at a current price posted by the buyer, or occasionally the cooperative seller, and varying from time to time.

The innovation in tuna selling was resorted to by the American Tunaboat Association in an effort to (a) secure prices at or above a minimum figure quoted by it as a bona fide cooperative; (b) to secure for its members the price benefits of variations in buyers' need for fish; (c) to give the buyer an opportunity to pay, and the fisherman to receive, a premium above the basic price for fish earning preference on the basis of quality, care in handling, size selection, and species composition of the trip.

The auction was initiated with a

CALIFORNIA IMPORTS OF FROZEN TUNA BY MONTHS

(Tons)

PECIES	Nov '56	Dec '56	Jan. '57	Feb	March	April	May	June	July	Aug	Sept	Oct	TOTAL
una and Tunalike:													
Albacore	202	474	691	3,178		.	.	671	2 913	1,352	1,516	822	11 819
Bluefin				.	7					.	175		182
Skipjack	1,766	200	2,090	220	1,895	2,051	2,318	1,408	1,188	53	1,114	733	15 036
Yellowfin	1,386	1,607	2,659	1,526	6,884	9,936	9,832	2 205	3,213	1 436	2,002	927	43,613
Unclassified	.			73	46	32	8	.	175	135	25	175	669
TOTAL	3,354	2,281	5 440	4 997	8,832	12,019	12,158	4,284	7,489	2,976	4,832	2,657	71 319
1955 - 1956 ll Tuna and Tunalike	928	3,092	4,370	3,763	12,164	14,189	14,528	1,614	4,387	2,953	1,309	2,979	66,276

1957 -IMPORTS OF FRESH AND FROZEN TUNA- 1957

Pounds

resh or Frozen	Oct. '56	Nov. '56	Dec. '56	Jan. '57	Feb.	March	April	May	June	July	August	Sept	TOTAL
JAPAN - Total	4,152,000	3,664,000	8,830,000	5,402,000	11,276,000	9,031,000	9,976,000	5,252,000	5,654,000	16,287,000	22 950 000	4,048,000	106,522,000
Albacore	240,000	416,000	5,138,000	1,820,000	8,649,000	5,282,000	5,780,000	1,990,000	2,612,000	9,326,000	16,217,000	1,896,000	59,366,000
Other Tuna	3,912,000	3,248,000	3,692,000	3,582,000	2,627,000	3,749,000	4,196,000	3,262,000	3,042,000	6,961,000	6,733,000	2,152,000	47,156,000
PERU - Total	1,592,000	2,978,000	234,000	6,888,000	544,000	3,307,000	2,127,000	1,343,000	3,247,000	1,429,000	...	956,000	24,645,000
Albacore	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuna	1,592,000	2,978,000	234,000	6,888,000	544,000	3,307,000	2,127,000	1,343,000	3,247,000	1,429,000	...	956,000	24,645,000
CUADOR- Total	...	...	215,000	221,000	...	...	22,000	24,000	...	...	...	...	482,000
Albacore	..	. .	. . .		. . .	. .	..						
Other Tuna	...	...	215,000	221,000	...	...	22,000	24,000	...	...	...	...	482,000
THERS-Total	141,000	260,000	...	...	...	...	...	624,000	...	358,000	18,000	5,000	1,406,000
Albacore	...	...	...	...	...	...	...	338,000	...	10,000	12,000	2,000	362 000
Other Tuna	141,000	260,000	...	...	...	...	...	286,000	...	348,000	6 000	3,000	1 044 000

Star-Kist SOLID PACK Fancy Tuna
Guaranteed by Good Housekeeping
Star-Kist Fancy ALBACORE WHITE MEAT Tuna
Star-Kist CHUNK STYLE Tuna
EATWELL California MACKEREL
EATWELL California SARDINES
EATWELL SARDINES
PACKED BY STAR KIST FOODS, INC. TERMINAL ISLAND CALIF. U.S.A.

Star-Kist – the Tuna with the FLAVOR ★ LOK Process

Watchful effort in packing and
testing has maintained our
"Flavor First" standards of
quality and is keeping our
brands the most preferred
of canned fish in America.

Star-Kist Foods, *Inc.*

TERMINAL ISLAND, CALIFORNIA

[illegible] BOGDANOVICH
PRESIDENT

SAN DIEGO CANNED TUNA BY GRADES

YEAR & TYPE	Solid	Standard	Chunks	Grated & Flakes	Dark & Light	Tonno	Misc.	TOTAL
1951								
Lightmeat	872,560	101,909	1,444,755	530,229	2,678	58,042	4,991	3,015,164
Whitemeat	180,887	88,887	100,926	39,119	.....	....	.....	409,819
Yellowtail & Bonito	....	270	....	12,175	.....	......	.....	12,445
TOTAL	1,053,447	191,066	1,545,681	581,523	2,678	58,042	4,991	3,437,428
1952								
Lightmeat	475,181	26,455	902,647	344,532	.....	36,868	1,009	1,786,692
Whitemeat	309,319	....	225,255	109,774	.....	7,708	.....	652,056
Yellowtail & Bonito	....	80	3,035	31,117	.....	......	.....	34,232
TOTAL	784,500	26,535	1,130,937	485,423	.....	44,576	1,009	2,472,980
1953								
Lightmeat	492,617	56,386	1,123,132	368,405	3,810	44,134	2,858	2,091,342
Whitemeat	351,945	....	142,192	141,440	557	10,875	.....	647,009
Yellowtail & Bonito	....	68	14,114	55,684	.....	......	.....	69,866
TOTAL	844,562	56,454	1,279,438	565,529	4,367	55,009	2,858	2,808,217
1954								
Lightmeat	763,880	48,645	1,614,929	384,897	4,206	64,155	.....	2,880,712
Whitemeat	249,972	....	84,809	58,563	.....	......	142	393,486
Yellowtail & Bonito	33	3,346	1,201	43,829	.....	......	.....	48,409
TOTAL	1,013,885	51,991	1,700,939	487,289	4,206	64,155	142	3,322,607
1955								
Lightmeat	463,761	34,850	1,144,899	266,162	.....	42,186	.....	1,951,858
Whitemeat	243,998	601	23,720	41,537	.....	......	.....	309,856
Yellowtail & Bonito	....	24	34	2,160	.....	......	.....	2,218
TOTAL	707,759	35,475	1,168,653	309,859	.....	42,186	.....	2,263,932
1956								
Lightmeat	588,264	44,877	1,773,473	335,296	.....	58,135	4,314	2,804,359
Whitemeat	271,163	283	59,769	48,285	.....	......	504	380,004
Yellowtail & Bonito	....	....	30	2,486	.....	......	.....	2,516
TOTAL	859,427	45,160	1,833,272	386,067	.....	58,135	4,818	3,186,879

SAN PEDRO CANNED TUNA BY GRADES

YEAR & TYPE	Solid	Standard	Chunks	Grated & Flakes	Dark & Light	Tonno	Misc.	TOTAL
1951								
Lightmeat	497,942	113,731	666,590	1,701,833	48,690	103,817	11,260	3,143,863
Whitemeat	264,789	72,667	99,723	141,941	610	418	229	580,377
Yellowtail & Bonito	....	22,926	....	66,153	....	....	......	89,079
TOTAL	762,731	209,324	766,313	1,909,927	49,300	104,235	11,489	3,813,319
1952								
Lightmeat	820,745	89,832	2,198,446	973,275	54,830	83,083	94,883	4,315,094
Whitemeat	505,833	12,114	302,238	178,827	6,276	1,738	24,375	1,031,401
Yellowtail & Bonito	....	53,475	7,606	132,457	....	....	....	193,538
TOTAL	1,326,578	155,421	2,508,290	1,284,559	61,106	84,821	119,258	5,540,033
1953								
Lightmeat	580,967	128,009	2,187,041	745,753	29,961	124,626	136,270	3,932,627
Whitemeat	699,469	18,379	326,908	217,422	10,546	164	40,211	1,313,099
Yellowtail & Bonito	....	10,915	16,865	75,941	....	....	....	103,721
TOTAL	1,280,436	157,303	2,530,814	1,039,116	40,507	124,790	176,481	5,349,447
1954								
Lightmeat	595,102	130,717	2,982,897	665,484	38,560	115,684	183,970	4,712,414
Whitemeat	691,162	8,648	272,537	203,845	7,687	327	22,458	1,206,664
Yellowtail & Bonito	....	8,456	812	17,858	....	....	....	27,126
TOTAL	1,286,264	147,821	3,256,246	887,187	46,247	116,011	206,428	5,946,204
1955								
Lightmeat	635,460	37,004	2,960,532	476,245	27,175	133,519	94,190	4,364,125
Whitemeat	872,403	31,411	233,586	232,775	5,084	....	36,618	1,411,877
Yellowtail & Bonito	....	272	....	2,229	....	....	....	2,501
TOTAL	1,507,863	68,687	3,194,118	711,249	32,259	133,519	130,808	5,778,503
1956								
Lightmeat	546,110	34,284	3,795,946	399,586	47,289	119,332	69,433	5,011,980
Whitemeat	607,003	26,656	287,068	117,444	4,257	25	15,340	1,057,793
Yellowtail & Bonito	....	....	....	3,978	....	....	....	3,978
TOTAL	1,153,113	60,940	4,083,014	521,008	51,546	119,357	84,773	6,073,751

1957 -IMPORTS OF CANNED TUNA- 1957

(In Pounds)

Countries		Oct. '56	Nov. '56	Dec. '56	Jan. '57	Feb.	March	April	May	June	July	August	Sept.	TOTAL
JAPAN -	TOTAL	1,664,000	3,423,000	2,108,000	1,779,000	1,940,000	4,222,000	3,664,000	3,941,000	2,269,000	3,645,000	5,088,000	3,008,000	36,751,000
Albacore:	Oil	49,000	4,000	18,000	47,000	115,000	83,000	23,000	6,000	104,000	10,000	17,000	51,000	527,000
	Brine	768,000	1,447,000	695,000	883,000	618,000	1,631,000	1,266,000	1,154,000	636,000	876,000	1,534,000	1,303,000	12,811,000
Other:	Oil	16,000	3,000	1,000	2,000	1,000	...	...	15,000	2,000	18,000	11,000	...	69,000
Tuna:	Brine	831,000	1,969,000	1,394,000	847,000	1,206,000	2,508,000	2,375,000	2,766,000	1,527,000	2,741,000	3,526,000	1,654,000	23,344,000
PORTUGAL-Total		98,000	57,000	...	121,000	18,000	68,000	35,000	29,000	89,000	31,000	114,000	129,000	789,000
Albacore	Oil	...	...	...	...	...	...	...	...	...	...	...	...	..
	Brine	...	...	...	...	...	...	...	8,000	39,000	...	41,000	28,000	116,000
Other	Oil	3,000	...	...	3,000	...	...	2,000	1,000	...	...	...	...	9,000
Tuna:	Brine	95,000	57,000	...	118,000	18,000	68,000	33,000	20,000	50,000	31,000	73,000	101,000	664,000
PERU -	TOTAL	20,000	10,000	1,000	3,000	...	72,000	111,000	...	36,000	10,000	24,000	13,000	300,000
Albacore:	Oil													
	Brine	...	...	...	...	...	...	...	...	...	...	...	...	..
Other:	Oil	...	...	...	...	...	...	105,000	...	...	...	...	..	105,000
Tuna:	Brine	20,000	10,000	1,000	3,000	...	72,000	6,000	...	36,000	10,000	24,000	13,000	195,000
ANGOLA -	TOTAL	31,000	...	...	...	56,000	48,000	10,000	13,000	...	...	...	15,000	173,000
Albacore:	Oil	...	...	...	...	...	...							
	Brine													
Other:	Oil	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuna:	Brine	31,000	...	...	...	56,000	48,000	10,000	13,000	...	...	...	15,000	173,000
AZORES -	TOTAL	17,000	12,000	...	22,000	...	...	...	15,000	24,000	108,000	107,000	93,000	398,000
Albacore:	Oil													
	Brine													
Other:	Oil	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuna:	Brine	17,000	12,000	...	22,000	...	...	...	15,000	24,000	108,000	107,000	93,000	398,000
OTHERS -	TOTAL	92,000	19,000	32,000	32,000	10,000	63,000	151,000	18,000	111,000	39,000	70,000	34,000	671,000
Albacore:	Oil	18,000	6,000	7,000	12,000	3,000	3,000	...	...	3,000	1,000	...	4,000	57,000
	Brine	28,000	10,000	21,000	6,000	5,000	1,000	29,000	...	9,000	21,000	10,000	...	140,000
Other:	Oil	...	3,000	4,000	1,000	2,000	1,000	...	8,000	72,000	2,000	16,000	2,000	111,000
Tuna:	Brine	46,000	...	...	13,000	...	58,000	122,000	10,000	27,000	15,000	44,000	28,000	363,000

scheduled opening price of $270 and $230 for Yellowfin and Skipjack, which was the sales price on which the union fishermen insisted before they would sail.

Early in the history of the auction these figures were secured or sometimes exceeded; and when it was necessary to sell below them in order to move a fare, it became necessary for the boat owners to make-up the difference in the settlement with the fishermen.

Frozen Imports Increase

● American tuna fishermen put the blame for their unsold catches and the rising difficulty at selling their fish above a profitless figure on imports of foreign tuna; and they were able to point to record imports in this category to their own ports.

For example, 1957 imports of frozen tuna to Southern California ports were up to 45,328 tons, a gain of 13,970 tons over those of 1956. Most of this came to San Pedro, which received 40,807 tons, as compared with 30,758 tons in 1956.

While San Diego's imports were a minor factor volume-wise, they presented a significant percentage increase, rising from a nominal 600 tons in 1956 more than seven-fold to 4,521 tons in 1957.

Campaign on the Potomac

● California's tuna industry carried its relief campaign to Washington with two separate and specific lines of action:

Legislative, through the Congress;

SAN DIEGO CANNED TUNA

(Cases -- All Sizes)

Year	Yellowfin	Bluefin	Skipjack	Albacore	Tonno	Tuna Flakes	Yel. tail	Bonito	TOTAL
1930	739,616	6,944	185,848	1,783	17,875	18,053	4,838	12,797	987,754
1931	431,229	.....	112,307	177	706	6,591	749	2,257	554,016
1932	403,050	177	203,381	.....	.....	4,774	668	10,213	622,263
1933	678,810	1	198,313	.....	.....	2,183	32,129	18,668	930,104
1934	780,066	6,683	195,798	.....	.....	8,100	6,100	17,309	1,014,056
1935	948,276	24,871	249,747	4,648	545	7,749	64,054	36,985	1,336,875
1936	1,074,811	22,390	295,330	35	740	14,967	95,059	36,743	1,540,075
1937	1,165,866	27,103	487,751	8,036	1,125	15,904	44,128	44,054	1,793,967
1938	1,010,814	49,840	221,917	24,355	.....	17,384	43,794	34,024	1,402,128
1939	1,348,565	27,020	257,528	46,372	7,318	31,136	12,875	19,588	1,750,402
1940	1,469,428	45,867	529,776	19,304	60,138	141,861	27,621	22,003	2,315,998
1941	1,016,759	32,369	323,466	10,145	308	130,004	103,066	41,265	1,657,382
1942	545,517	28,413	590,594	104,578	.....	111,096	20,965	14,173	1,415,336
1943	392,114	12,021	294,964	227,347	.....	381,967	5,488	6,810	1,320,711
1944	485,796	16,473	257,994	307,806	.....	530,368	3,237	4,284	1,605,958
1945	1,037,009	22,742	458,895	329,251	.....	96,162	14,074	18,450	1,976,583
1946	1,549,557	28,753	445,560	233,622	.....	268,767	28,965	34,797	2,590,021
1947	1,875,087	6,557	695,170	145,300	26,359	323,511	45,800	23,127	3,140,911
1948	2,364,819	1,991	729,505	462,255	.....	366,828	31,362	8,058	3,964,818
1949	2,059,468	2,889	904,793	535,013	4,038	420,491	22,695	2,189	3,951,576
1950	913,458	3,300	495,462	482,894	54,988	1,898,568	3,235	4,506	3,856,411
1951	.....	2,424,215*	.....	370,000	58,042	584,201	.....	270**	3,437,428
1952	.....	1,405,292*	.....	534,574	44,576	485,423	.....	3,115**	2,472,980
1953	.....	1,674,428*	.....	494,137	55,009	515,704***	52,042	17,824	2,809,144
1954	.....	812,525*	.....	249,972	64,155	2,147,546***	20,983	27,426	3,322,607
1955	.....	498,611*	.....	244,599	42,186	1,476,445#	1,756	462	2,264,059
1956	.....	586,218	.....	234,984	60,745	2,179,516	1,441	1,075	3,063,979

*Yellowfin, Bluefin and Skipjack not given separately. ***Includes miscellaneous. **Yellowtail & Bonito not given separately.

#Includes chunks & miscellaneous.

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and *Corrective,* through the Federal Tariff Commission.

Initial moves had been made on both these courses before the end of 1957, but at presstime of this *Pacific Fisherman Yearbook Number* results could not be forecast.

In December, 1957, the Tariff Commission again held hearings on the problems of the tuna industry, with all sides competently presented and emphasis brought on new facts and developments and influences which have arisen since the commission's last hearing.

On one point all elements of the producing industry were in precise agreement. This was: *Tuna canned in brine is directly competitive with standard tuna canned in oil; and it is essentially inequitable that it should be accorded preferential tariff treatment.*

Congress in 1957 received a number of bills, all similar, designed to correct the economic problems critical in the tuna industry. Bills introduced in the Senate by Magnuson of Washington and in the House by King of California were typical of the group and seemed to be strategically in the favored positions.

Broadly, the tuna relief measures in the hands of Congress as it convened in January, 1958, provided:

(a) Quota on tuna imports in any condition, set at percentage of the apparent U. S. consumption, with tariff rates rising as the quotas were exceeded;

(b) Equal tariff treatment for canned tuna in all forms, whether canned in oil or water;

(c) Establishment of a tariff on imports of frozen tuna at a sliding rate geared to volume, and rising from nominal levels on a substantial initial tonnage quota.

Chile Asserts Jurisdiction

● Operations of American tuna vessels on the high seas far off the west coast of South America were interfered with by Chile late in 1957 when that nation asserted its jurisdiction over fishing operations, fired on American craft in warning, and levied fine against them for fishing in waters which the United States regards as well beyond territorial limits.

Prior to this action the United States tuna fleet had been operating for many months off the west coast of South America without difficulty and under arrangements with Peru and Ecuador which were considered generally satisfactory to all concerned. Under these arrangements, tuna vessels wishing to fish for bait or tuna in waters claimed by the coastal na-

CALIFORNIA CANNED FISH PACKS

YEAR	Albacore Cases	Tuna-Bluefin Cases	Tuna-Skipjack Cases	Tuna-Yellowfin Cases	Tuna-Chunks, Flakes	Tuna-Tonno Cases	Bonito Cases	Yellowtail Cases	Mackerel Cases	Salmon Cases	Sardine Cases	Shad Cases	Squid Cases	Pet Food Cases	Misc. Cases	TOTAL CASES	YEAR
1926	66,001	70,283	274,970	165,561	8,162	131,553	44,186	18,940	550	11,761	2,163,755	.....	23,536	.....	63,794	3,043,052	1926
1927	126,699	50,008	382,175	366,395	7,631	207,496	22,277	24,530	10,961	8,435	2,625,412	6,485	.....	.....	44,396	3,882,900	1927
1928	99,751	132,342	134,491	503,077	16,733	117,821	18,900	5,657	388,471	4,585	2,815,330	7,475	2,056	.....	124,809	4,431,498	1928
1929	132,638	89,728	347,132	612,810	18,613	119,805	47,674	15,296	611,503	5,503	3,941,459	9,791	6,056	.....	53,925	6,012,433	1929
1930	145,531	309,604	268,130	878,382	29,561	74,985	69,341	21,343	127,333	11,202	3,069,524	1,796	25,271	.....	127,236	5,159,239	1930
1931	144,973	46,462	278,398	613,344	19,441	36,220	38,254	2,041	101,217	14,070	1,794,991	.....	19,827	44,372	4,855	3,158,465	1931
1932	65,377	8,687	305,007	678,313	16,291	42,247	42,114	3,115	89,176	2,005	1,001,845	201	.....	67,256	50	2,323,052	1932
1933	49,391	7,581	273,041	937,792	13,090	41,200	36,560	33,518	760,126	3,076	1,422,860	.....	1,740	112,725	1,369	3,698,293	1933
1934	82,182	332,411	267,328	1,097,912	30,502	55,163	52,554	9,816	1,214,491	820	2,051,726	.....	4,257	80,224	1,104	5,324,084	1934
1935	112,149	438,501	338,493	1,254,478	41,658	82,205	128,065	81,177	1,761,186	874	2,529,262	5,039	8,781	122,826	2,269	6,920,625	1935
1936	53,884	334,377	480,260	1,418,045	24,873	58,537	104,078	112,128	1,228,348	.....	2,820,742	13,124	12,282	128,384	5,178	6,803,815	1936
1937	91,159	215,535	763,916	1,582,477	50,438	137,737	129,572	47,480	793,780	147	2,983,204	6,361	5,531	179,230	100	6,986,616	1937
1938	289,389	324,198	372,998	1,284,179	64,476	67,404	125,854	71,234	958,890	.....	2,443,469	11,244	20,167	287,403	545	6,341,557	1938
1939	356,675	218,476	469,570	1,927,292	72,240	77,340	159,090	24,614	968,718	.....	3,326,162	12,665	23,926	384,427	150	8,021,345	1939
1940	145,741	313,210	836,223	2,005,819	227,320	184,232	87,367	68,482	1,435,113	.....	3,188,089	15,743	34,603	832,091	100	9,374,133	1940
1941	92,240	168,702	433,029	1,325,645	170,549	33,838	176,859	129,307	843,747	1,125	5,395,284	68	21,587	1,027,903	16	9,820,485	1941
1942	239,505	279,098	719,574	759,908	150,976	23,479	32,288	37,392	614,090	.....	3,846,785	24,945	941	197,403	.....	6,941,643	1942
1943	425,741	174,865	383,167	696,209	502,515	26,599	35,625	73,268	839,312	1,475	3,400,106	11,516	119,237	.....	11,131	6,699,736	1943
1944	435,123	374,004	363,857	827,483	757,800	15,365	8,490	19,848	986,422	1,691	3,725,657	12,541	141,808	.....	45,206	7,738,949	1944
1945	480,615	297,858	548,174	1,497,991	548,454	16,198	49,816	17,336	589,617	5,457	3,884,582	.....	184,141	.....	225,971	8,346,210	1945
1946	381,271	333,001	648,289	2,213,692	826,793	.....	108,306	44,045	716,668	9,817	3,102,232	589	643,843	.....	56,689	9,085,235	1946
1947	286,272	370,893	904,451	2,642,354	742,038	33,762	243,994	133,734	1,522,199	18,754	1,814,050	1,778	229,967	1,087,040	199,115	10,230,401	1947
1948	797,035	98,473	930,235	3,335,759	850,760	22,663	158,253	153,428	971,646	22,786	3,203,028	2,477	369,762	1,153,802	204,741	12,274,848	1948
1949	861,737	46,336	1,068,215	2,694,947	1,762,223	82,859	20,312	53,767	924,104	1,801	4,286,034	893	88,217	1,249,366	20,265	13,161,076	1949
1950	1,125,463	11,186	734,528	1,632,625	4,497,839	257,356	8,263	14,073	1,410,541	4,279	5,430,439	1,948	84,675	2,060,709	85,827	17,359,751	1950
1951	607,230	.....	.....	1,586,142	4,793,574	162,277	14,356	87,489	1,040,300	1,266	3,052,642	1,078	224,884	1,593,176	431,465	13,595,879	1951
1952	962,063	.....	.....	1,547,310	5,443,228	129,502	46,509	181,261	1,573,745	3,115	109,633	1,375	1,616	1,751,006	724,522	12,474,885	1952
1953	1,215,362	.....	.....	1,352,438	5,710,186	176,002	69,638	100,480	598,305	4,931	.64,084	4,911	166,612	1,692,796	1,202,769	12,358,514	1953
1954	1,092,313	.....	.....	1,592,457	6,698,302	180,166	44,603	30,932	383,500	2,162	1,437,228	1,997	134,718	1,892,187	469,814	13,960,379	1954
1955	1,285,249	.....	.....	1,251,199	5,805,631	202,880	2,739	1,980	564,672	2,954	1,537,793	.....	284,890	2,378,366	478,934	13,797,287	1955
1956	1,029,810	.....	.....	1,288,516	7,240,023	177,492	1,605	4,889	1,131,462	3,189	799,650	3,976	387,297	3,099,589	668,208	15,835,706	1956

Bluefin, Skipjack and Yellowfin are combined under Yellowfin from 1951. Cases are as they run.

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tions register on an annual basis and then in addition secure trip or periodic licenses based on the tonnage of the vessel. In Peru all funds derived from this source are used to maintain the scientific research program of the Peruvian National Hydrobiological Council, which conducts all that country's scientific research associated with the sea and its fisheries.

- Late in the fall of 1957 a heavy concentration of Skipjack was encountered of the coast of northern Chile, further south than the American fishing vessels had ever operated to a significant degree at least.

There was a strong southward movement of American vessels at the word of good fishing. Chile, without any arrangement to accommodate such a shift, warned the vessels away from her coast, even though they were fishing on what the United States for generations has considered the high seas. With military aircraft firing warning shots toward the American vessels, the situation assumed dangerous character.

The matter was brought promptly to negotiation, however, and an arrangement was worked out by which Chile would establish a basis for American fishing operations off its coast along the lines of the permit arrangement with Peru and Ecuador.

- American tuna operations were clarified and codified to a substantial degree in 1957 by a consent decree drawn by the Federal Trade Commission and accepted by California canners, boat owners and fishermen's unions, in all representing a large proportion of the American tuna industry.

Terms of the order, condensed are:

Canners

- May not have any understanding, agreement or planned common course of action to:

Fix or maintain prices or establish terms for raw, frozen, canned, or imported tuna.

Refuse to sell canned tuna on consignment or compel others not to sell on this basis.

Negotiate with each other in buying or selling tuna for canning.

Curtail the volume or raise the prices of imports.

Collect, for price-fixing purposes, reports showing their individual inventories, purchases, sales, etc. They may, however, collect information in any exporting country to present to any Federal or state agency or to Congress.

Other exemptions listed in the order for canners are these:

CALIFORNIA PACK OF CANNED TUNA AND RELATED FISHES

(Cases)

	SAN PEDRO DISTRICT								SAN DIEGO DISTRICT								San Francisco & Monterey	GRAND TOTAL	
YEAR	Yellowfin	Bluefin	Skipjack	Albacore	Flakes	Tonno	Tunalike (Bonito & Yellowtail)	TOTAL	Yellowfin	Bluefin	Skipjack	Albacore	Flakes	Tonno	Tunalike (Bonito & Yellowtail)	TOTAL			YEAR
1926	122,968	67,525	189,581	43,660	11,786	90,689	47,710	573,919	96,363	2,758	85,389	14,555	4,162	40,864	15,416	259,507	. . .	833,426	1926
1927	185,423	40,363	155,755	105,598	7,816	197,275	26,660	718,890	200,635	9,645	226,420	20,481	435	10,221	20,147	487,984	. . . .	1,206,874	1927
1928	323,813	85,994	64,061	99,093	7,577	106,038	14,759	701,335	287,770	46,348	130,430	658	9,156	11,783	9,798	495,943	. . .	1,197,278	1928
1929	199,292	67,091	128,436	130,212	7,707	88,454	49,943	671,135	458,687	22,637	218,696	2,426	10,906	31,351	13,027	757,730	. . . .	1,428,865	1929
1930	262,278	302,660	82,282	143,748	11,508	57,110	73,049	932,635	739,616	6,944	185,848	1,783	18,053	17,875	17,635	987,754	. . . .	1,920,389	1930
1931	182,115	46,462	166,091	144,796	12,850	35,514	37,289	625,117	431,229	....	112,307	177	6,591	706	3,006	554,016	. . . .	1,179,133	1931
1932	275,263	8,510	101,626	52,215	11,517	42,247	34,348	525,726	403,050	177	203,381	. . . .	4,774	....	10,881	622,263	13,162	1,161,151	1932
1933	258,982	7,580	74,728	49,391	10,907	41,200	19,281	462,069	678,810	1	198,313	. . .	2,183	....	50,797	930,104	. . . .	1,392,173	1933
1934	317,846	325,350	71,350	82,182	22,402	55,163	38,961	913,254	780,066	6,683	195,798	. . . .	8,100	. ..	23,409	1,014,056	. . . .	1,927,310	1934
1935	306,202	413,630	88,746	107,501	33,909	81,660	108,203	1,139,851	948,276	24,871	249,747	4,648	7,749	545	101,039	1,336,875	.	2,476,726	1935
1936	343,234	311,987	184,930	53,849	9,906	57,797	85,404	1,047,107	1,074,811	22,390	295,330	35	14,967	740	131,802	1,540,075	. .	2,587,182	1936
1937	416,611	188,432	276,165	83,123	34,534	136,612	88,870	1,224,347	1,165,866	27,103	487,751	8,036	15,904	1,125	88,182	1,793,967	. .	3,018,314	1937
1938	273,365	273,358	151,081	265,034	47,092	67,404	119,270	1,196,604	1,010,814	49,840	221,917	24,355	17,384	. . .	77,818	1,402,128		2,598,732	1938
1939	578,727	191,456	212,042	281,666	41,104	70,022	151,241	1,526,258	1,348,565	27,020	257,258	46,372	31,136	7,318	32,463	1,750,402	28,637	3,305,297	1939
1940	536,391	267,343	306,447	122,484	85,459	124,094	106,225	1,548,443	1,469,428	45,867	529,776	19,304	141,861	60,138	49,624	2,315,998	3,953	3,868,394	1940
1941	308,886	136,333	109,563	73,024	40,545	33,530	161,835	863,716	1,016,759	32,369	323,466	10,145	130,004	308	144,331	1,657,382	9,071	2,530,169	1941
1942	214,391	250,685	128,980	128,670	39,880	23,479	34,542	820,627	545,517	28,413	590,594	104,578	111,096	....	35,138	1,415,336	6,257	2,242,220	1942
1943	303,881	162,844	88,203	187,052	120,548	17,239	96,595	976,362	392,114	12,021	294,964	227,347	381,967	....	12,298	1,320,711	11,342	2,308,415	1943
1944	341,687	357,531	105,863	125,632	234,639	15,365	20,817	1,201,534	485,796	16,473	257,994	307,806	530,368	....	7,521	1,605,958	1,685	2,809,177	1944
1945	460,982	275,116	89,279	148,286	452,292	16,198	34,628	1,476,781	1,037,009	22,742	458,895	329,251	96,162	....	32,524	1,976,583	3,078	3,456,442	1945
1946	663,814	304,248	202,729	141,629	558,026	. . . .	88,589	1,959,035	1,549,557	28,753	445,560	233,622	268,767	....	63,762	2,590,021	6,341	4,555,397	1946
1947	765,426	342,309	209,281	104,726	417,644	7,403	308,540	2,155,329	1,875,087	6,557	695,170	145,300	323,511	26,359	68,927	3,140,911	61,258	5,357,498	1947
1948	969,732	94,190	200,693	290,811	477,769	22,663	270,404	2,326,608	2,364,819	1,991	729,505	426,255	366,828	....	39,420	3,964,818	55,526	6,346,952	1948
1949	614,847	38,142	157,373	289,063	1,330,358	78,821	49,195	2,557,799	2,059,468	2,889	904,793	535,013	420,491	4,038	24,884	3,951,576	81,021	6,590,396	1949
1950	742,815	14,786	266,809	586,683	2,456,705	202,368	14,595	4,284,761	913,458	3,300	495,462	482,894	1,898,568	54,988	7,741	3,856,411	143,273	8,141,172	1950
1951	611,673	. . . .	. . . .	337,456	2,670,876	104,235	77,229	3,801,469	974,469	....	. . . .	269,774	2,122,698	58,042	10,260	3,435,243	293,873	7,530,585	1951
1952	3,089,057	. . . .	. . . .	814,198	1,216,024	86,948	196,453	5,402,680	1,354,515	....	. . . .	509,385	459,840	45,328	34,234	2,403,302	296,860	8,102,842	1952
1953	3,009,258	*	*	1,097,602	1,179,273	122,091	100,252	5,508,476	1,723,934	*	*	500,615	516,922	53,911	69,866	2,865,248	250,385	8,624,109	1953
1954	725,729	. . . .	. . . .	699,810	4,377,438	166,011	27,126	5,946,114	812,525	....	. . . .	249,972	2,147,546	64,155	48,409	3,322,607	369,962	9,638,683	1954
1955	672,464	. . . .	. . . .	903,814	4,039,030	160,694	2,501	5,778,503	498,611	....	. . . .	244,599	1,476,445	42,186	2,218	2,264,059	507,116	8,549,678	1955
1956	565,289	. . . .	. . . .	613,312	4,717,583	122,074	3,978	6,022,236	586,218	....	. . . .	234,984	2,179,516	60,745	2,516	3,063,979	576,364	9,662,579	1956
1957	4,779,665	. . . .	. . . .	1,431,750	...	...	4,263	6,215,678	2,584,996	....	. . . .	727,752	...	....	2,131	3,314,879	**	9,530,557	1957

* Segregation of lightmeat tuna pack as to species, and amounts of chunks, flakes and tonno not available at presstime. Accordingly, all lightmeat tuna and special packs made from lightmeat have been shown under Yellowfin. Albacore totals also include chunks, flakes and tonno packed from this species. Quantities given are in standard cases of 48 halves.

** Segregation of Central California pack from other districts not available

1957-Imports of Canned Bonito-1957

(Pounds)

COUNTRIES	Oct. '56	Nov. '56	Dec. '56	Jan. '57	Feb.	March	April	May	June	July	August	Sept.	TOTAL
Peru	888,000	899,000	1,329,000	1,547,000	1,777,000	1,071,000	1,395,000	2,243,000	1,360,000	1,417,000	1,020,000	875,000	15,221,000
Other Countries	58,000	20,000	82,000	89,000	81,000	35,000	27,000	60,000	9,000	6,000	17,000	37,000	521,000
TOTAL	946,000	919,000	1,411,000	1,636,000	1,258,000	1,106,000	1,422,000	2,303,000	1,369,000	1,423,000	1,037,000	912,000	15,742,000

They may individually negotiate price and terms with any fishing boat or any cooperative acting pursuant to the Fishermen's Cooperative Marketing Act.

Although, they may contract with cooperatives to buy tuna caught by boats in which the canners have an interest, they must not exercise any control over the cooperatives in the marketing or sale of the fish inconsistent with their contract with the cooperatives.

Those owning fishing boats are not prevented from bona fide collective bargaining with boat employees of their union.

They may enter into or continue bona fide joint operations in buying from exporting countries.

A canner may direct operations of its marketers owned by the same interests if these operations do not result in any restraint of trade.

Boat Owners

Under the order the boat owner associations are forbidden to enter into or continue any understanding, agreement, or planned common course of action to:

Negotiate among themselves to fix or maintain prices or establish conditions for the sale or purchase of raw tuna.

Threaten, coerce, or compel, as a condition for the purchase of raw tuna, the purchase of any other raw fish, and vice versa. However, when a contract provides for the purchase of other fish in addition to future tuna catches, this shall not, in itself, be interpreted as violating the order.

Participate, financially or otherwise, in maintaining fixed prices by using patrol boats.

Curtail imports by any unlawful means.

Operate as a fishing boat association without having control over the marketing, sale, delivery, and disposition of the tuna caught by all members.

The order provides for the following other exemptions for boat owner associations:

They are not prevented from using practices permitted by the Fishermen's Cooperative Marketing Act.

They properly may enforce contracts with members or purchasers of raw tuna caught by members.

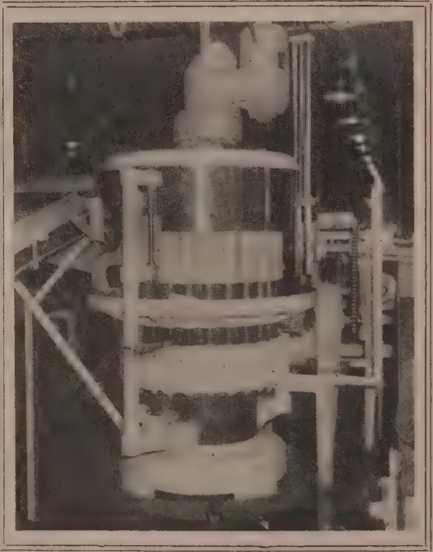
Fishermen's Unions

Under the order the Unions are forbidden to enter into or continue any

E. H. CARRUTHERS COMPANY
Engineers—Designers
To the Food Packing Industry

Tuna Packing Mechanized by Our Pak-Shaper

Pak-Shaper's Introduction in 1949 developed in tuna canning a greater measure of mechanization than had come about in 30 years of previous growth. . . . Subsequent experience has proved its value to the industry. A large percentage of major tuna operators presently employ the Pak-Shaper.



THE PAK-FORMER

The Pak-Former Now Available to the Tuna Industry

This machine has been developed exclusively for Chunk and Grated Style Pack. A variable speed drive permits filling speed adjustments of between 140 and 250 cans per minute. Available to the industry under similar terms as the Pak-Shaper.

E. H. CARRUTHERS CO. • P. O. BOX 1332 • WARRENTON, OREGON

Pacific Northwest Tuna Packs

(Oregon and Washington - in Standard Cases)

Year	Albacore				Lightmeat				Total	Year
	Solid	Chunks	Flakes	Total	Solid	Chunks	Flakes	Total		
1955	438,945	39,583	105,412	583,940	7,308	209,367	24,760	241,435	680,380	1955
1956	642,218	54,751	123,785	820,754	22,550	378,238	38,862	439,650	1,260,404	1956

1957-PACIFIC NORTHWEST ALBACORE PACK-1957

COMPANY	CANNERY LOCATION	FANCY & STANDARD		CHUNKS & FLAKES		TOTAL, Basis 48 Halves
		Halves	Other	White	Blended	
Columbia River Packers Assn.	Astoria, Ore.	318,017	94,348	48,800	115,305	576,470
Crown Packers & Crown Seafoods	Hoquiam & Seattle, Wash.	* 15,000	..	. .	. . .	* 15,000
Lazio Fish Co., Tom,	Eureka, Calif.	· 746	200		.	946
Point Adams Packing Co.	Hammond, Ore.	32,978	1,781	7,633	7,050	49,442
Portland Fish Co.	Portland, Ore.	13,671	....	5,038	2,533	21,242
West Coast Fish Co.	Aberdeen, Wash.	* 40,720	744	. . .	. .	* 41,464
Whiz Fish Products Co.	Hoquiam, Wash.	15,434	. . .	. . . .	496	15,930
GRAND TOTAL		466,566	97,073	61,471	125,384	750,494

NOTE:- Totals are given on the basis of standard cases of 48 Halves, without distinction as to net weight of contents between Fancy, Standard, Chunk and Flake packs.

*Includes custom canned fish.

understanding, agreement, or planned common course of action to:

Fix or maintain raw tuna prices.

Threaten, coerce, or compel, as a condition for the purchase of raw tuna, the purchase of any other raw fish, and vice versa. However, when a working agreement provides for the catching of other fish in addition to tuna, this shall not, in itself, be interpreted as violating the order.

Negotiate among themselves for the sale or purchase of raw tuna.

Participate, financially or otherwise, in maintaining fixed prices by using patrol boats. However, patrols may be used to enforce contracts between the parties thereto pertaining to pay, hours, etc., of members.

Coerce buyers to pay fixed prices for raw tuna.

Other exemptions to the Unions are:

They can individually buy or sell or individually bargain with any single buyer or seller.

Genuine collective bargaining is not prevented or any other practices permitted by the Labor-Management Relations Act, 1947.

They may sell members' catches which cannot otherwise be disposed of under existing contracts.

They may enforce contracts with buyers who fail to comply with terms.

Northwest Albacore Pack Down

● Albacore canning in the Pacific Northwest slipped moderately in 1958 as result of lower local tuna production, weaker national market, and consequent curtailment of importations from Japan.

Total for the year, just above three-quarters of a million cases, was 70,000 cases off from the 820,000 cases packed the year before and was in third place behind 1944, the all-time high for Pacific Northwest Albacore canning with 846,000 cans.

● Local fishing on the north coast during the 1957 season was sporadic and generally disappointing. While on occasion some boats found excellent fishing, the yield was not well sustained and the hot spots were sometimes widely separated in time and space.

Operations tended to follow the trend of previous years with packing continuing to be concentrated more and more at Astoria and Grays Harbor. This was true alike of local landings and of imports.

Tuna Prices Per Ton Paid Fishermen

YEAR	Albacore	Yellowfin	Bluefin	Skipjack
1917	$30	$50	$45	$40
1918	125	90	80	40
1919	200	90	80	40
1920	300	90	80	40
1921	145	80	80	60
1922	250	100	80	60
1923	300	80	75	60
1924	360	80	80	60
1925	200	80	80	60
1926	175	110	110	75-80
1927	Nominal	110	90	75
1928	$200 up	120	90	75
1929	300	120	110	70-80
1930	200	120	110	90
1931	200	120-100	90	90-80
1932	200	80	75	70
1933	200	100	90	80
1934	200	100	90	80
1935	125-160	100	90	80
1936	Nominal	105-110	95-90	85-90
1937	215	120	110	100
1938	215-130	120	110	100
1939	125	110	100	90
1940	140	110	110	100
1941	140	110-130	110-120	100-110
1942	300-400	190	180	170
1943	325	200	190	180
1944	325-390	200	190	180
1945	390	200	190	180
1946	390-440	200-280	190-270	180-260
1947	410-600	310-340	300	290-320
1948	550-740-425	340	330	320
1949	400-350	340-310	330-300	320-290
1950	400	310	300	290
1951	400-250-300	310	300	290
1952	350-400	320	310	280
1953	400	320	310	280
1954	400-410	350-330	340-320	320-290
1955	350-310-330	330-270	320-210	290-230
1956	375-300	270	280-260	230
1957	310-280-300	270-230-270*	260-200-260	230-190-230*

NOTE:- Prices quoted are per ton of round fish in good condition landed at cannery dock. All fish rejected by inspectors, either as landed or after precooking, are deducted from the gross weight.

Figures given undertake to state the prevailing market level. Where a range in prices is shown it represents a definite change in market level in the course of the season, the movement being from the first to the second figures stated. Quotations for 1943 through 1945 are OPA ceiling prices for cannery fish, and represent the total amounts which may be paid the fishermen in cash or allowances, save for the cost of war-risk insurance. The lower figures in 1946 are ceiling prices and the higher represent levels attained after removal of OPA controls.

*Final prices quoted for Yellowfin and Skipjack were the minimum prices acceptable for opening bids on the tuna auction initiated at San Diego in 1957 by the American Tunaboat Association.

NORTH PACIFIC ALBACORE TUNA LANDINGS

(Pounds)				(Pounds)					(Pounds)
OREGON				WASHINGTON					Combined Oregon and Washington TOTALS
Columbia River	South of Columbia	Oregon TOTAL		Puget Sound	Grays Harbor	Willapa Harbor	Columbia River	Washington State, TOTAL	
			1947						
673,647	362,169	1,035,816	July	45,505	1,037,929	43,786	140,469	1,267,689	2,303,505
2,027,945	584,636	2,612,581	August	177,831	2,153,029	92,529	260,545	2,683,934	5,296,515
2,092,618	2,304,774	4,397,392	September	8,563	65,899	10,785	. . . .	85,247	4,482,639
817,813	310,021	1,127,834	October	25,480	32,898	. . . .	. . . .	58,378	1,186,212
5,612,023	3,561,600	9,173,623	1947 TOTALS	257,379	3,289,755	147,100	401,014	4,095,248	13,268,871
			1948						
1,990,811	652,747	2,643,558	July	62,312	1,578,549	58,561	162,821	1,862,243	4 505,801
2,723,713	962,938	3,686,651	August	390,672	3,318,286	123,892	348,561	4,181,411	7,868,062
932,365	422,249	1,354,614	September	169,900	116,808	61,822	. . . .	348,530	1,703,144
33,053	124,329	157,382	October	14,938	36,521	6,890	. . . .	58,349	215,731
5,679,942	2,162,263	7,842,205	1948 TOTALS	637,822	5,050,164	251,165	511,382	6,450,533	14,292,738
			1949						
526,928	104,676	631,604	July	31,968	654,685	32,382	51,073	770,108	1,401,712
1,625,236	519,676	2,144,912	August	825,487	2,174,227	79,840	93,094	3,172,648	5,317,560
1,301,185	923,260	2,224,445	September	6,860	287,086	. . . .	2,507	296,453	2,520,998
1 073,558	224,787	1,298,345	October	75,601	115,196	. . . .	. . . .	190,797	1,489,042
26,273	1,361	27,634	November	3,895	. . . .	. . . .	. . . .	3,895	31,529
4,553,180	1,773,760	6,326,940	1949 TOTALS	943,811	3,231,194	112,222	146,674	4,433,901	10,760,841
			1950						
1,430,466	233,420	1,663,886	July	152,213	1,506,955	130,851	365,227	2,155,246	3,819,132
1,114,353	787,569	1,901,922	August	317,068	1,563,558	78,253	108,101	2,066,980	3,967,902
254,458	241,514	495,972	September	34,672	7,293	. . . .	. . . .	41,965	537,937
1,046,105	171,781	1,217,886	October	. . . .	22,084	. . . .	. . . .	22,084	1,239,970
210,851	. . . .	210,851	November	. . . .	. . . .	. . . .	. . . .	. . . .	210,851
4,056,233	1,434,284	5,490,517	1950 TOTALS	503,953	3,099,890	209,104	473,328	4,286,275	9,776,792
			1951						
25,527	15,656	41,183	July	. . . .	52,442	1,520	. . . .	53,962	95,145
186,450	30,336	216,786	August	20,528	88,817	18,121	1,098	128,564	345,350
667,145	635,503	1,302,648	September	21,106	171,236	34,712	. . . .	227,054	1,529,702
1,012,583	241,741	1,254,324	October	92,355	19,554	. . . .	. . . .	111,909	1,366,233
90,878	10,726	101,604	November	. . . .	. . . .	. . . .	. . . .	. . . .	101,604
1 982,583	933,962	2,916,545	1951 TOTALS	133,989	333,049	54,353	1,098	521,489	3,438,034
			1952						
10,050	3,944	13,994	July	. . . .	515	. . . .	. . . .	515	14,509
8,039	115,060	123,099	August	. . . .	1,997	3,642	. . . .	5,639	128,738
284,663	1,014,502	1,299,165	September	8,269	31,840	14,138	. . . .	54,247	1,353,412
792,615	47,424	840,039	October	41,733	48,109	. . . .	. . . .	89,842	929,881
252,102	4,364	256,466	November	22,308	. . . .	. . . .	. . . .	22,308	278,774
52,591	. . . .	52,591	December	. . . .	4,512	. . . .	. . . .	4,512	57,103
1,400,060	1,185,294	2,585,354	1952 TOTALS	72,310	86,973	17,780	. . . .	177,063	2,762,417
			1953						
21,378	. . . .	21,378	August	. . . .	620	. . . .	. . . .	620	21,998
60,238	505,950	566,188	September	1,062	2,515	. . . .	. . . .	577	569,765
145,034	39,912	184,946	October	18,426	14,211	. . . .	. . . .	32,636	217,583
. . . .	1,000	1,000	November	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
226,650	546,862	773,512	1953 TOTALS	19,488	17,346	. . . .	. . . .	36,834	809,346
			1954						
33,054	65,898	98,952	September	344	8,773	. . . .	. . . .	9,117	108,069
262,381	84,788	347,169	October	100,358	2,634	. . . .	. . . .	102,992	450,161
8,115	2,122	10,237	November	15,804	10,181	. . . .	. . . .	25,985	36,222
. . . .	. . . .	. . . .	December	13,231	. . . .	. . . .	. . . .	13,231	13,231
303,550	152,808	456,358	1954 TOTALS	129,737	21,588	. . . .	. . . .	151,325	607,683
			1955						
11,205	15,676	26,881	September	. . . .	. . . .	. . . .	. . . .	. . . .	26,881
275,041	43,176	318,211	October	200,000	. . . .	. . . .	. . . .	200,000	518,211
158,212	. . . .	158,212	November	. . . .	. . . .	. . . .	. . . .	. . . .	158,212
444,458	58,852	503,304	1955 TOTALS	200,000	. . . .	. . . .	. . . .	200,000	703,304
			1956						
208,832	234,990	443,822	August	. . . .	39,492	2,457	15,414	57,363	501,165
2,310,558	308,359	2,618,917	September	32,216	189,769	. . . .	163,199	385,184	3,004,101
415,568	9,124	424,692	October	160,491	10,009	. . . .	. . . .	170,500	595,192
156,962	. . . .	156,962	November	16,681	. . . .	. . . .	. . . .	16,681	173,643
7,594	1,534	9,128	December	. . . .	. . . .	. . . .	. . . .	. . . .	9,128
3,099,514	554,007	3,653,521	1956 TOTALS	209,388	239,270	2,457	178,609	629,728	4,283 249
			1957						
50,232	85,136	135,368	July	455	9,085	. . . .	2,269	11,809	147,177
441,547	470,082	911,629	August	1,008	41,054	. . . .	100,089	142,151	1,053,780
466,888	159,486	626,374	September	45,582	10,427	. . . .	7,278	63,287	689,661
796,109	267,617	1,063,726	October	14,053	. . . .	. . . .	. . . .	14,053	1,077,779
1,754,776	982,321	2,737,097	1957 TOTALS	61,098	60,566	. . . .	109,636	231,300	2 968,397

Note: Complete 1957 figures not available.

Pacific Northwest Albacore

YEAR	Solid	Chunks	Flakes & Grated	TOTAL	VALUE
1939	. .	. . .	. .	173, 359	
1940	.	. . .	. . .	207, 723	
1941	. . .	. . .	. .	197, 629	
1942	. .	. . .	. . .	314, 353	
1943	260, 085	41, 329	. . .	301, 414	
1944	604, 574	242, 022	. . .	846, 596	
1945	324, 900	141, 959	. . .	466, 859	
1946	136, 127	56, 110	. . .	192, 237	
1947	272, 888	112, 682	. . .	385, 570	
1948	293, 547	123, 809	. . .	417, 356	
1949	326, 911	106, 008	. . .	432, 919	
1950	502, 778	198, 236	. . .	701, 014	$ . . .
1951	292, 973	96, 263	. . .	389, 236	. . . .
1952	391, 242	197, 684	. . .	588, 926	. . . .
1953	412, 819	181, 254	. .	594, 073	. .
1954	356, 666	113, 530	. . .	470, 196	. . . .
1955	438, 945	39, 583	105, 412	583, 940	7, 837, 294
1956	642, 218	54, 751	123, 785	820, 754	10, 549, 970
1957	563, 639	53, 386	133, 469	750, 494	9, 531, 718

NOTE:- Small quantities canned at Eureka, Calif., have been included in the Pacific Northwest. Grade segregation not available for all styles of pack, and pack valuation not available for years prior to 1955. All figures are on the basis of standard cases of 48 halves. Valuation for current year is a preliminary total and subject to correction.

Associated with the disappointment of the 1957 North Coast Albacore season was the failure of the fish run to reach expectations in spite of the fact that weather conditions during the late summer and early fall appeared to be tailored precisely to the supposed preference of this species. Thus the weather of 1957 was reported by fishermen to follow closely the pattern of 1944, which produced the greatest Albacore catch in the history of the Pacific Northwest fishery.

● Although market interest in Pacific Albacore reacted in keeping with the domestic tuna trade generally, it appeared that North Coast Albacore commanded a premium in the national market. Sales were reported generally satisfactory in volume, and relatively acceptable in price, particularly when the condition of the U. S. tuna market generally was considered.

The fishermen complained bitterly over the relatively low price available to them for local landings, but it stood on a parity with the offerings for the much larger volume of deliveries in California.

● Albacore landings in northern California were not as heavy in 1957 as in 1956. It seems, that many fishermen preferred to take their fish, caught off northern California ports, direct to southern California where they got a higher price.

In 1956 Albacore landings in northern California for the first 10 months of the year were 4,144 tons. This compares with landings of 2,066 tons in 1957.

In 1957 only three canneries in northern California packed tuna. These were Tom Lazio Fish Co., Eureka; Washington Packing Corporation, and F. E. Booth Co., Inc., San Francisco.

The pack of tuna in northern California, which of course included imported frozen fish as well as locally caught Albacore, showed a drop in 1956 as compared to 1955. In the former year 507,116 cases were packed in northern California, while in 1955 some 476,364 cases were packed.

Most of the northern California tuna pack is private label. Canners reported that sales were satisfactory but profit-wise business was not so good as in former years. Prices were reported to have started out at $9.25 per case for light meat chunk, and toward the close of the year, this item was around $9.75. Light meat solid pack rose from $10.80 to $11.25, and white meat solid pack rose from $11.00 to $11.50 per case during the year.

U. S. Tuna Pack other than Pacific States

(Hawaii, Samoa, Puerto Rico, Atlantic and Gulf States)
In Standard Cases

YEAR	ALBACORE				LIGHTMEAT				TOTAL	YEAR
	Solid	Chunks	Flakes	Total	Solid	Chunks	Flakes	Total		
1955	**	**	**	**	276, 829*	343, 658*	222, 225*	842, 712*	842, 712	1955
1956	273, 262	28, 682	19, 527	321, 471	142, 885	348, 032	144, 035	634, 952	956, 423	1956

*Includes Albacore

**Included with Lightmeat

Tuna Clipper Fleet Explanatory Notes—See Following Page

NOTE—In the accompanying table of California tuna clippers, in some cases yards listed under "Builder" actually were the yards where the vessels were converted to tuna fishing, rather than the original builder. In the above table names of yards have been abbreviated as follows: **Avondale,** Avondale Marine Ways, New Orleans; **Bellingham,** Bellingham Iron Works, Bellingham, Wash.; **Birchfield,** Birchfield Boiler, Inc., Tacoma; **Campbell,** Campbell Machine Works, San Diego; **Chilman,** Chilman Shipyard, Hoquiam, Wash.; **Consolidated,** Consolidated Steel Corporation, Newport Beach; **Fulton,** Fulton Shipyard, Antioch, Calif.; **Genoa,** Genoa Boat Works, San Francisco; **Guntert,** Guntert & Zimmerman, Stockton, Calif.; **Harbor,** Harbor Boat & Yacht Co., San Diego; **Hodgson,** Hodgson-Greene-Haldeman, Long Beach; **Lake Union,** Lake Union Dry Dock Co., Seattle; **Al Larson,** Al Larson Boat Co., Terminal Island; **Long Beach,** Long Beach Marine Repair, Long Beach; **Lynch,** Llynch Shipbuilding Co., San Diego; **Marine,** Marine View Boat Building Co., Tacoma; **Martinac,** J. M. Martinac Shipbuilding Corporation; **Martinolich,** Martinolich Shipbuilding Co., San Diego; **National,** National Steel & Shipbuilding Co., San Diego; **Peterson,** Peterson Boat Building Co., Tacoma; **Puget Sound,** Puget Sound Boat Building Co., Tacoma; **Rask,** Peter Rask Boat Yard, San Diego; **San Diego,** San Diego Marine Construction Co., San Diego; **Schulte,** Schulte Boat Works, Gardiner, Ore.; **Soule,** Soule Steel Co., Stockton, Calif.; **Tacoma,** Tacoma Boatbuilding Co., Tacoma; **United,** United Concrete Pipe Co., Long Beach; **Western,** Western Boatbuilding Co., Tacoma. *Ownership as shown by latest edition of "Merchant Vessels of the United States."

California Tuna Clipper Fleet—1957

Following list represents the California fleet of live-bait tuna fishing vessels—"clippers"—delivering to San Pedro or San Diego canneries at the end of 1957. It does not include American-built vessels delivering all or the major part of their catches in foreign ports, or those based in foreign countries and delivering to carriers for transport to United States ports. "Capacity" is the approximate number of tons of refrigerated tuna in a maximum load for the vessel.

Name of Boat	Builder	Capacity	Length	Managing Owner
Aggressor	Martinolich	125	320	Joseph Rogers
Agnes C.	Western	98	160	Van Camp Sea F'd Co.
Alphecca	National	128	240	Ambrose Co.
American Beauty	Campbell	142	350	G. P. Ellington
American Boy	Consolidated	124	310	Joaquim Canas
American Enterprise	Lynch	128	275	M. S. Rice
Antoinette B.	National	121	280	Edw. X. Madruga
Azoreana	Campbell	142	375	M. G. Rosa
Balboa			55	John Zolezzi
Belle of Portugal	Campbell	130	325	M. G. Rosa
Benita	Campbell	90	125	Mario Toso
Bernadette	Campbell	145	350	Frank Medina
Cabrillo	National	127	340	Joe Soares
Cal	Campbell	90	110	Geo. Campbell
Cape Beverly	Martinac	113	185	J. M. Martinac
Cape Falcon	Harbor	128	240	Louis Peterson
Cape San Vincent	Tacoma	91	130	Vincent Gann
Carol Virginia	National	115	200	National Marine
Challenger	Avondale	122	240	Lewis Livesley
Charlene	Martinolich	115	215	Dr. O. H. Warner
Chicken of the Sea	Birchfield	143	420	Harold Morgan Jr.
City of San Francisco	Genoa	95	110	Joseph Colla
Clara Marie	No. American	62	60	Frank Mangiapone
Coimbra	Western	136	300	Van Camp Sea Food
Columbia	Martinac	107	210	Manuel Serpa
Commander	Birchfield	126	290	Al Davis
Commodore	Campbell	130	260	Louis Vattuone
Concho	National	127	340	Nat'l. Marine Terminal
Conte Bianco	National	127	300	Stefano Massa
Conte di Savoia	Consolidated	125	310	National Marine
Constitution	Campbell	150	390	Vernon Brown
Cora Ann	Harbor	73	70	*M. J. Rankin
Corsair	Chilman	128	280	Harold Morgan
Courageous	United	131	325	Lewis Livesley
Crusader	Puget Sound	105	250	*J. G. Cardosa
Daiho II		80	55	*C. M. Johnson
Deolinda	San Diego	100	140	San Diego Marine
Dominator	National	127	340	George Soares
Mary Lou	Lynch	118	210	Herbert C. Hudgins

Name of Boat	Builder	Length	Capacity	Managing Owner
Mary E. Petrich	Western	150	490	Western Boat Bldg. Co.
Mary S.	Martinac	110	200	Lewis Livesley
Mauritania	Avondale	132	325	Lewis Livesley
Mayflower	Campbell	145	370	George Campbell
May Queen	Puget Sound	121	275	Carl Medina
Mercator			55	H. Olsen
Mermaid	Peterson	107	190	O. W. Martin
Miss America	Hodgson	100	150	*Hodgson, G. H.
Missouri	National	127	340	National Marine
Monarch	Hodgson	80	100	Salvador Lucas
Mondego	Puget Sound	103	190	Manuel Almeida
Myrtle L		46	30	J. Dale Martin
Navigator	Campbell	145	370	Joe S. Rogers
Normandie	Campbell	160	445	M. O. Medina
Northern Light	Campbell	90	150	W A. Hoss
Notre Dame	Lynch	96	160	John G. Cardosa
Oceana	Campbell	148	400	*Thos. Bagalini
Pacific Queen	Rask	79	80	Jack Carniglia
Palomar	San Diego	103	160	Lee Irish
Paramount	Avondale	132	325	Joe Madruga
Picaroto	Campbell	130	325	Manuel G. Rosa
Portuguesa	Lynch	113	235	Manuel G. Rosa
Queen Mary	Campbell	140	400	Joseph Manchado
Renown	Hodgson	126	250	Lewis Livesley
Ronnie S	Campbell	128	240	Tom Santos
Royal Pacific	Martinac	117	250	J. M. Martinac
Ruthie B	National	110	160	Dr. O. H. Warner
St. Anthony		68	70	Frank Alito
St. Francis	Western		100	Western Boat Bldg. Co.
St. Mary		80	120	Louis Massa
San Antonio III			50	Pete Di Maria
San Juan	National	127	340	National Marine
Santa Anita	Avondale	121	200	Nicholas F. Trutanic
Santa Helena	Avondale	135	360	Andrew Zamberlin
Santa Margarita	Al Larson	105	180	*John G. Cardosa
Santa Rosa	Harbor	128	240	Anthony Bozanich
Saratoga	Tacoma	121	250	Manuel Luz
Sea Boy	Lake Union	124	215	Manuel A. G. Luis
Seafarer	Birchfield		250	Al Davis

Ecuador	National	133	460	M. O. Medina
Electra	San Diego	57	50	*Dan Battaglia
Elena	Martinolich	98	150	W. H. Babcock
Elsinore	National	127	340	National Marine
Endeavor	Campbell	143	400	Wade Ambrose
Equator	National	133	360	M. O. Medina
Espirito Santo	Soule	140	485	Frank Perry
Evelyn R	Long Beach	126	240	M. M. Medina
Excalibur	Avondale	121	240	Ave Gonsalves
Far-Famed	Campbell	125	200	Maurice Bernandini
Favorite	Puget Sound	105	200	Antonio da Rosa
Frances Marie	Martinolich	103	165	Frank Perry
Gem of the Sea	Martinac	128	280	Manuel E. Simas
Golden Glow	Peterson	96	155	Frank Fernandes
Helen Ann	Bellingham	130	240	A. T. Procopio
Helen S	Harbor	120	280	Manuel Simas
Heroic	Lynch	116	200	M. O. Medina
High Seas	Hodgson	128	290	J. F. Reis
Historic	Martinac		240	M. O. Virissimo
Independence	National	127	340	Nat'l. Marine Terminal
Intrepid	Lynch	128	270	George Budd
Invader	Campbell	117	150	Sal. Navarra
Irene S	Al Larson	105	210	Van Camp
Jeanne Lynn	Tacoma	122	250	G. W. Martin
Jenita	National	106	140	G. W. McHenry
Joan of Arc	United	131	300	Manuel Balelo
Jo Maria	Hodgson	123	260	Mrs. J. Sciuto
Judy S	Harbor	124	230	Nat'l. Marine Terminal
Julia B	Lynch	96	160	John Ghio
Katie Lou	Lynch	124	225	Felix Budzilko
Kitty Hawk	United	131	290	N. C. Andrews
Leona C	Martinac	128	210	Joe Penacho
Liberty	Puget Sound	100	180	Eddie X. Madruga
Liberty Bell	Hodgson	112	215	F. H. Gonsalves Jr.
Lone Wolf	Harbor	69	70	John Zolezzi
Lou Jean	Consolidated	106	210	Louis Guidi
Lucky Star	National	106	175	National Marine
Lucy Elena	National	111	195	National Marine
Lusitania	Al Larson	98	160	Manuel G. Rosa
Marie Louise	San Diego	75	75	Steve Zolezzi
Mariner	Fulton	128	280	F. W. Szalinski
Martin B	National	128	270	Frank Perry
Mary Barbara	National	127	340	National Marine
Mary C. Canas	Puget Sound	100	140	Jack Canas
Missouri	National	127	340	Nat'l. Marine Terminal
Jean Jean			75	John Zolezzi
Mary Jo	Martinac	108	170	Joe Rogers

Sea Giant	Martinolich	92	100	Nat'l. Marine Terminal
Sea Lark	National	165	550	Nat'l. Marine Terminal
Sea Lion	Hodgson	91	133	Manuel Calergio
Sea Magic	Avondale	121	200	E. Frederick
Sea Preme	National	127	320	Nat'l. Marine Terminal
Shamrock	San Diego	105	175	Ernie Monteiro
Shasta	San Diego	96	115	Jack Canepa
Sheryl	Schulte	67	55	*B. L. Johnson
South Coast	Western	115	195	Dan Marks
South Seas	Hodgson	95	165	Steve Stagnaro
Southern Pacific	Martinac	123	260	J. M. Martinac
Southern Queen		100	160	John Rippo
Southland	Martinac	100	160	California Marine
Star Crest	San Diego	110	200	Star & Crescent
Star of the Sea	Campbell	115	190	Nat'l. Marine Terminal
Sun Europa	Martinolich	149	350	Sam Crivello
Sun Glow	Puget Sound	98	150	Anthony Madruga
Sun Hawk	Pacific Boat	93	130	George Alameda
Sun Hilarita	Avondale	130	310	Virgil Paixao
Sun Jason	Avondale	132	280	Nat'l. Marine Terminal
Sun Pacific	Tacoma	128	250	Janous J. Marks
Sun Queen	Hodgson		260	C. A. Cutri
Sun Ray	United	131	280	Steve Kral
Sun Splendor	Campbell	128	240	Sun Pacific Inc.
Sun Venus	Martinolich	103	160	*Alfred Brum
Sun Victoria	Campbell	149	370	*Sun Pacific, Inc.
Supreme	Campbell	128	260	Manuel Correia
Talisman		75	50	*So. Calif. Fish Co.
Trojan	No. American	55	30	Sam Meserve
United States	National	127	340	National Marine
United Victory	Hodgson	116	240	*Arthur DeFever
Valiant	Martinac	108	180	Calif. Marine
Venetian	Campbell	65	55	*Steve Stagnare
Veva R.	Campbell	70	80	*Matteo Rodia
Victoria		140	380	The Ambrose Co.
Virginia R	Tacoma Boat	108	240	Joe C. Correira
West Coast	Lynch	96	180	John Ghio
Western Ace	Western	165	575	Hervey Petrich
Western King	Western	170	369	Hervey Petrich
West Point	Tacoma	112	250	Carl Hanken
Westport	National	127	340	National Marine
White Sea	Harbor	128	280	White Sea Corp.
White Star	Guntert	140	484	John Tasso
Wiley V. A.	Guntert	112	215	The Ambrose Co.
Zarco		122	170	Zarco Fishing Co.

(Refer to explanatory note on adjacent page.)

RAYMOND B. MATSON, San Francisco, Calif.

MASON CASE, San Pedro, Calif.

ROBERT KALLENBERG, Dillingham, Alaska

- **Mr. Matson** in 1957 became executive vice president of Wilbur-Ellis Co. with offices in the San Francisco headquarters of that world-wide organization which he has served continuously for 37 years in Canada and the United States. He advanced from the Seattle office, where he had been manager since 1939.

- **Mr. Case** is manager of the Fishermen's Co-operative Association of San Pedro and is a frequent spokesman industrially and nationally for the purse seine vessel owners and operators of Southern California, as on the occasion of the hearing in December, 1957, before the U. S. Tariff Commission.

- **Mr. Kallenberg** is a Bristol Bay fisherman and Dillingham, Alaska, school teacher. He is chairman of the Alaska Fish and Game Commission; and chairman of the Advisory Committee to the American Section of the International North Pacific Fisheries Commission.

1957

California Sardine Operations Hit Half-Million Cases

• California sardine canning dipped again in 1957, barely clearing the half-million-case mark. Fish were scarce, but it was the loss of many weeks of fishing in the Southern California area that really cut into production.

As result of the price dispute in the Southern California area, the canneries of Central California put up almost half of the state's production of sardines, packing 231,509 cases to 269,970 cases for the Los Angeles area.

The state pack as a whole, 501,479 cases, made poor comparison with the 799,650 cases packed the year before.

Moreover, the half-million cases were less than 10% of the pack as recently as 1950.

• The Southern California sardine season in 1957 opened September 1, a month earlier than ever in the past, due to action taken by the California legislature to advance it. However, there was no fishing for the Southern California fleet until well into November, due to difference over prices, between fishermen's organizations as well as between fishermen and canners.

• The fleet from the north, working down near the southern district's boundary and delivering its fish for hauling north by refrigerated trucks, put in some fair tonnage.

The Southern California sardine fishing tie-up of 1957 resulted when AFL-CIO Seine and Line Fishermen's Union and the ILWU, Local 33, clashed over price demands for fish. The ILWU insisted upon $80 per ton for sardines, $55 per ton for all types of mackerel and $27.50 for anchovies. AFL-CIO union members for the most part were willing to accept prices offered by Terminal Island canners: $55 for sardines, $42.50 for mackerel and $25 for anchovies.

ILWU pickets tied up the San Pedro fleet and, briefly, the boats operated out of Port Hueneme. When pickets were withdrawn from Port Hueneme, fishing there was resumed at $52.50 per ton for sardines and from $42.50 to $45 per ton for mackerel, depending upon the mixture.

Several San Pedro boats fished sardines for a Terminal Island canner at $80 per ton. This canner stated that he could not afford to pay such a price but was compelled to do so in order to keep business alive. Other canners simply ceased to pack sardines.

Finally, after ten weeks of idleness, the San Pedro fleet resumed fishing on November 9 at $55 per ton for sardines and $42.50 for mackerel.

• American sardines were up against the stiffest kind of market competition outside the domestic area.

This was particularly true of the orient, where so large a part of the California production once was sold.

At the end of 1957 the U. S. Market News Service reported that United

1957 - CALIFORNIA SARDINE PRODUCTION - 1957

Month	Tons Received	Cases 1-lb. Oval 4 doz.	Cases 1-lb. Tall 4 doz.	Cases 8 oz. Oblong 48	Cases 5 oz. All 100s	Cases Other Sizes	Total Cases Actual Count	Total Standard Cases 48 - 1 lb.	Month
January	686	14,122	6,229	..	469	141	20,961	20,888	January
September	5,399	98,383	13,006	.	.	3,165	114,554	114,554	September
October	6,172	127,341	11 780	1,537	12,565	5 050	158,273	155,763	October
November	6,679	108,805	16,665	529	32,175	827	159,001	163,569	November
December	2,017	32,108	4,970	155	9,472	249	46,954	46,705	December
GRAND TOTAL	20 953	380,759	52,650	2,221	54,681	9.432	499,743	501,479	GRAND TOTAL

NOTE:- While the sardine season was opened in August, no production was reported prior to September 1.

States oval sardines were quoted in Manila at $13.75 per case, with similar Japanese goods priced at $11.15.

• The ranks of northern California sardine canneries were thinner by one in 1957, but the story of sardine reduction plants was even more depressing.

Where some 14 plants were busy canning sardines in the Monterey and Moss Landing areas in 1951, and nine in the San Francisco Bay area, by 1956 only one plant was active in San Francisco, one in Moss Landing, and six in Monterey.

Early in 1957 the six Monterey canneries were reduced to five when the Peninsula Packing Co., formerly the E. B. Gross Canning Co., ceased production of canned tuna and sardines, and was dismantled with the machinery being sold.

So seven plants were operating in northern California during 1957. No fish were caught near San Francisco or Monterey Bay, and fish was trucked in from Port Hueneme, Santa Barbara and Avial to northern California.

The canneries receiving fish were J-D Packing Co., San Francisco; Santa Cruz Canning Co., Moss Landing; and Enterprise Packers, San Xavier Fish Packing Co., California Packing Corp., Carmel Canning Co., and Hovden Food Products Corp., Monterey.

To all extents and purposes the straight sardine reduction plant had almost disappeared from the scene. For a number of years, since the collapse of the sardine industry after 1946, the Fish & Game Commission had given no permits for the reduction of sardines into fish meal and oil, and by 1957 these sardine reduction plants were almost all gone.

There had been a continuing movement of machinery from the closed plants with equipment being sold as a unit or being removed piece meal from the plants and sold to fish processing concerns overseas, or into other industries.

In 1951 there were 29 sardine reduction plants in the Moss Landing-Monterey area, but by 1957 there were only six plants still intact—all of these in conjunction with the canneries mentioned above.

In the San Francisco area there were in 1951 some 33 sardine reduction plants. By 1957 only one or two of these plants would be in a position to operate on sardines should the fish come back and reduction for straight fish meal and oil be allowed. One of these plants is in conjunction with the San Francisco cannery still packi
sardines.

No Northern Sardines

• No sardines were caught in ce
tral California waters, all fish bei
trucked in from southern Californ
To the early part of December 195
some 10,135 tons of fish had be
canned by San Francisco, Moss Lan
ing, and Monterey canneries. Th
compares with 6,608 tons trucked
for the entire year of 1956, and
16,954 tons for the year previous a
9,700 tons for 1954.

The northern California pack
early December was estimated
about 200,000 cases, as compared
145,702 in 1956; 368,583 in 195
216,207 in 1954; 1,335 in 1953 whi
was rock bottom since 1912.

After the usual price debate part
Monterey's sardine purse seine fle
left that port Aug. 19 to scout for sa
dines off Monterey, when no fish we
found they continued to Avila a
searched in that area.

The northern California sardine se
son opened Aug. 1, and the price w
$52.50 per ton for sardines. This co
pares to $47.50 per ton paid at t
start of the 1956-57 season. For sa
dines mixed with mackerel the pri

Since 1921 . . . **EXCELLENCE OF QUALITY**

SEA BOY SARDINE FILLETS Barbecue Sauce

Delicate Smokey Flavor

SEA BOY

SARDINE FILLETS IN BARBECUE SAUCE

Petuna ALL TUNA RED MEAT PET FOOD

25% HI-PROTEIN

PETUNA

All Tuna Red Meat Pet Food

SEA BOY
Fancy White Meat

★

SEA ACE
Mackerel Sardines

★

GEM OF THE SEA
Fancy Tuna

JOS. M. MARDESICH, *Pres. & Gen'l Mgr.*

FRANCO-ITALIAN PACKING CO.

215 CANNERY STREET • TE 2-4275 • TERMINAL ISLAND, CALIFORNIA

was $45 per ton. Trucking charges were to be paid by fishermen from port of landing.

Later on in the season, when the San Pedro purse seiners began fishing, the price was raised to $55 per ton, less trucking charges.

It was two weeks later before the Monterey fleet hit fish. Northern California's sardine canneries got started September 3, but on southern California fish.

Even though the northern California season opened Aug. 1, after fruitless scouting around the southern edges of the district—Avila and Morro Bay—no fish were taken until the season in southern California opened Sept. 1, and the 16 boats from Monterey could go further south. The sardine fleet in southern California was tied up with a strike and remained that way for weeks.

By Sept. 9 some 1,200 tons of fish had been landed at Santa Barbara and Port Hueneme, and trucked to San Francisco, Moss Landing, and Monterey for processing. About 25,000 cases of ovals had been packed to that date.

Death took its toll among leaders in northern California's sardine industry during the year.

Shedo Russo, 53, former managing partner of the Monterey purse seiner *Juanita*, died of a heart attack while fishing at Koggiung, Alaska, for Libby, McNeil & Libby.

Sal Maiorana, 65, skipper of the Monterey purse seiner *Twin Brothers*, died of a heart attack. He was the brother of Pete Maiorana, skipper of the well known purse seiner *Diana*, and Angelo Maiorana, skipper of the *Dux*.

W. R. "Will" Ernst, for more than 30 years associated with the San Francisco canned food brokerage firm of H. A. Irving Co. and president of the Carmel Canning Co., Monterey, took leave of absence for an indefinite period. Phelps Hollywood, vice-president of Carmel Canning Co., has assumed Mr. Ernst's duties.

A 34 year veteran with Wilbur-Ellis Co., world-wide sea products factors, Raymond B. Mattson was elected executive vice-president of the company. He makes his offices at the San Francisco headquarters of the company, having moved there from Seattle, where he was manager.

Clifton D. "Bud" Day, formerly president of San Carlos Canning Co., Monterey, and later district superintendent in charge of fish operations for the California Division of the California Packing Corporation, under D. T. Saxby, California district manager, was transferred to the Alaska Packers Association division of the company

California Sardine Industry

	Catch, Tons	Oil, Gallons	Meal, Tons	Case Pack, 1-lb. Ovals or Equiv.
1941-42 SEASON				
San Francisco District	185,921	7,162,343	29,935	854,709
Monterey District	249,717	7,222,683	36,309	2,429,804
San Pedro - San Diego District	147,825	2,113,939	18,859	1,870,601
Season TOTALS	583,463	16,498,965	85,103	5,155,114
1942-43 SEASON				
San Francisco District	115,586	4,467,454	19,114	413,165
Monterey District	183,158	5,590,335	28,255	1,429,652
San Pedro - San Diego District	202,597	3,090,994	29,614	1,862,073
Season TOTALS	501,341	13,148,783	76,983	3,704,890
1943-44 SEASON				
San Francisco District	126,132	5,018,816	20,064	425,487
Monterey District	212,383	6,578,416	32,840	1,563,036
San Pedro - San Diego District	135,007	2,185,779	20,608	1,161,750
Season TOTALS	473,522	13,783,011	73,512	3,150,273
1944-45 SEASON				
San Francisco District	136,337	5,616,063	22,258	271,528
Monterey District	234,613	8,305,401	34,920	887,190
San Pedro - San Diego District	177,465	3,781,148	26,795	1,102,662
Season TOTALS	548,415	17,702,612	89,973	2,261,380
1945-46 SEASON				
San Francisco District	83,483	3,581,808	12,765	456,001
Monterey District	142,282	4,803,560	20,297	1,220,579
San Pedro - San Diego District	170,325	2,846,216	23,481	2,073,963
Season TOTALS	396,090	11,231,584	56,543	3,750,543
1946-47 SEASON				
San Francisco District	2,846	65,002	519	6,590
Monterey District	26,818	755,674	3,893	155,329
San Pedro - San Diego District	198,052	3,314,193	26,870	1,931,544
Season TOTALS	227,716	4,134,869	31,182	2,093,463
1947-48 SEASON				
San Francisco District	383	4,440	37	5,793
Monterey District	14,492	260,375	1,756	222,867
San Pedro - San Diego District	95,362	1,458,983	11,762	1,258,660
Season TOTALS	110,237	1,723,798	13,555	1,487,320
1948-49 SEASON				
San Francisco District	1,688	16,590	127	34,197
Monterey District	52,203	783,627	5,566	914,624
San Pedro - San Diego District	127,350	1,436,939	13,301	2,113,897
Season TOTALS	181,241	2,237,156	18,994	3,062,718
1949-50 SEASON				
San Francisco District	17,798	607,004	2,917	81,040
Monterey District	133,570	3,431,286	17,513	1,606,767
San Pedro - San Diego District	186,392	2,402,760	23,343	2,632,305
Season TOTALS	337,760	6,441,050	43,773	4,320,112
1950-51 SEASON				
San Francisco District	....	538,132	2,408	67,698
Monterey District	....	1,132,643	6,443	759,172
San Pedro - San Diego District	....	4,802,054	34,660	4,444,120
Season TOTALS	....	6,472,829	43,511	5,270,990
1951-52 SEASON				
San Francisco District	321	6,350	32	4,342
Monterey District	24,864	327,149	2,217	495,542
San Pedro - San Diego District	101,356	1,121,770	10,855	1,867,978
Season TOTALS	126,541	1,455,269	13,104	2,367,862
1952-53 SEASON				
San Francisco District	....	....	....	....
Monterey District	285	2,345	14	5,740
San Pedro - San Diego District	3,330	15,529	186	64,819
Season TOTALS	3,615	17,874	200	70,559
1953-54 SEASON				
San Francisco District	....	....	....	....
Monterey District	58	410	3	1,335
San Pedro - San Diego District	2,568	12,218	161	61,622
Season TOTALS	2,629	12,628	164	62,957
1954-55 SEASON				
San Francisco District	814	4,550	45	18,883
Monterey District	8,674	86,032	567	192,525
San Pedro - San Diego District	57,654	669,922	5,926	1,180,517
Season TOTALS	67,142	760,504	6,538	1,391,925
1955-56 SEASON				
San Francisco District	2,522	21,114	185	55,686
Monterey District	14,133	168,796	1,143	313,255
San Pedro - San Diego District	56,535	690,106	5,763	1,162,605
Season TOTALS	73,190	880,016	7,091	1,531,546
1956-57 SEASON				
San Francisco District	836	....	....	836
Monterey District	5,787	49,410	330	55,527
San Diego District	25,114	276,703	2,585	304,402
Season TOTALS	31,737	326,113	2,915	360,765

CALIFORNIA CANNED SARDINE PACK

(Cases)

YEAR	MONTEREY AND SAN FRANCISCO BAY DISTRICT							SAN PEDRO DISTRICT						SAN DIEGO DISTRICT TOTAL	GRAND TOTAL	YEAR
	1-lb. Ovals	1-lb. Talls	½-lb. Cans Misc.	½-lb. Fillets	5-oz. Talls	Other Sizes	TOTAL	1-lb. Ovals	1-lb. Talls	½-lb. Cans Misc.	5-oz. Talls	Other Sizes	TOTAL			
1912	17,702	. . . .	. . . .	. . . .	. . . .	1,072	18,774	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	18,774	1912
1913	73,686	. . . .	. . . .	. . . .	. . . .	. . . .	73,686	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	73,686	1913
1914	80,834	. . . .	. . . .	. . . .	. . . .	. . . .	80,834	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	80,834	1914
1915	46,625	. . . .	. . . .	. . . .	. . . .	609	47,234	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	47,234	1915
1916	97,100	. . . .	. . . .	. . . .	. . . .	8,532	105,632	2,512	. . . .	. . . .	. . . .	3,296	5,808	54,655	166,095	1916
1917	331,065	. . . .	. . . .	. . . .	. . . .	29,809	363,472	131,347	. . . .	. . . .	. . . .	546,033	679,120	147,602	1,190,194	1917
1918	593,448	. . . .	. . . .	. . . .	. . . .	26,151	619,609	325,587	. . . .	. . . .	. . . .	433,374	758,961	106,418	1,484,979	1918
1919	805,884	. . . .	. . . .	. . . .	. . . .	27,084	832,968	125,784	. . . .	. . . .	. . . .	105,741	231,514	87,033	1,151,515	1919
1920	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	706,726	. . . .	. . . .	. . . .	. . . .	. . . .	244,900	111,370	1,062,996	1920
1921	287,954	. . . .	. . . .	. . . .	. . . .	10,975	298,929	77,048	. . . .	. . . .	. . . .	3,765	80,813	9,370	389,112	1921
1922	353,188	. . . .	. . . .	. . . .	. . . .	1,479	354,667	340,938	. . . .	. . . .	. . . .	6,096	347,034	27,140	729,034	1922
1923	580,984	. . . .	. . . .	. . . .	. . . .	10,001	590,985	490,064	. . . .	. . . .	. . . .	2,769	492,833	48,205	1,132,023	1923
1924	631,774	. . . .	. . . .	. . . .	. . . .	22,416	654,190	693,133	. . . .	. . . .	. . . .	4,491	697,624	63,624	1,420,128	1924
1925	737,743	. . . .	. . . .	. . . .	. . . .	37,119	774,862	920,191	. . . .	. . . .	. . . .	2,685	922,876	56,041	1,753,779	1925
1926	1,158,133	. .	31,483	. . . .	. . . .	2,867	1,192,483	861,088	. . . .	. .	. . . .	21,702	861,481	88,419	2,163,755	1926
1927	1,341,872	. .	36,363	237	17,808	826	1,397,106	1,046,453	. . . .	. . . .	119,815	. . . .	1,166,268	62,038	2,625,412	1927
1928	1,511,535	4,569	43,754	159	80,252	2,495	1,642,764	945,676	9,652	. . . .	146,724	. . . .	1,099,052	73,514	2,815,330	1928
1929	2,039,526	54,618	16,969	11	75,101	2,187	2,188,412	1,438,159	76,271	8,072	168,039	33,753	1,724,294	28,753	3,941,459	1929
1930	1,579,408	74,043	19,692	391	141,524	3,751	1,818,809	863,254	106,460	2,909	228,965	8,138	1,209,726	40,989	3,069,524	1930
1931	1,004,215	43,722	11,280	. . . .	40,375	337	1,099,929	498,996	59,853	11,931	119,930	1,467	691,637	3,425	1,794,991	1931
1932	459,756	4,467	3,276	88	17,726	2,528	487,481	415,874	36,292	. .	54,197	. . . .	506,363	7,641	1,001,845	1932
1933	838,533	47,575	4,604	. . .	38,013	1,532	930,217	365,750	57,969	. . .	53,996	4,336	482,051	10,592	1,422,860	1933
1934	1,091,158	48,769	6,527	8,361	67,913	2,675	1,225,413	531,619	119,506	. . . .	164,735	. . . .	815,860	10,463	2,051,736	1934
1935	1,126,466	218,523	39,566	91,525	128,168	27,704	1,631,952	615,808	135,531	25,519	112,264	251	889,373	11,437	2,532,762	1935
1936	1,089,683	202,148	89,280	113,516	124,490	41,946	1,661,063	586,038	259,793	132,488	156,649	749	1,135,717	22,863	2,819,643	1936
1937	679,317	227,806	51,068	73,785	68,164	9,284	1,109,424	761,776	634,215	263,729	200,060	1,509	1,861,289	12,491	2,983,204	1937
1938	721,036	58,168	104,419	97,277	154,488	16,287	1,151,675	600,532	318,691	212,064	162,245	. . . .	1,293,532	19,056	2,464,263	1938
1939	1,248,747	310,168	125,251	141,900	138,217	28,538	1,992,821	627,524	308,896	217,100	178,072	1,520	1,333,112	229	3,326,162	1939
1940	933,955	249,195	158,300	151,518	225,975	18,384	1,737,327	664,241	398,960	230,771	156,681	72	1,450,725	37	3,188,089	1940
1941	1,601,506	1,092,720	234,093	182,703	296,568	54,961	3,462,551	689,210	870,256	216,972	151,384	2,136	1,929,958	2,775	5,395,284	1941
1942	802,795	663,309	8,283	75,386	94,755	59,695	1,704,223	619,881	1,342,030	85,776	90,672	2,918	2,141,277	1,285	3,846,785	1942
1943	1,045,451	832,934	128,438	. . . .	20,208	36,037	2,063,068	400,504	846,314	44,516	26,507	2,235	1,320,076	697	3,383,841	1943
1944	1,051,397	1,088,918	61,828	20,584	374	18,255	2,241,356	434,414	963,551	23,297	. . . .	1,040	1,422,302	. . . .	3,663,658	1944
1945	766,554	951,346	81,019	10,075	. . . .	102,391	1,911,385	444,649	1,480,175	48,215	. . . .	. . .	1,973,039	. . . .	3,884,424	1945
1946	123,063	171,698	39,376	10,233	. . . .	9,050	353,420	602,008	2,073,679	73,125	. . .	. .	2,748,812	. . . .	3,102,232	1946
1947	108,289	71,691	72,995	155,677	. . . .	4,181	412,833	510,760	802,243	29,327	57,260	. . . .	1,399,590	1,627	1,814,050	1947
1948	400,841	197,865	527,346	16,645	. . . .	994	1,143,691	611,927	970,569	347,991	120,413	. . . .	2,050,900	6,587	3,201,178	1948
1949	869,104	491,196	344,148	12,434	127,741	6,291	1,850,914	822,053	1,112,939	194,690	305,438	. . . .	2,435,120	. . . .	4,286,034	1949
1950	427,416	224,569	6,533	44,843	99,357	24,179	827,197	1,476,695	2,256,213	355,087	451,365	63,882	4,603,242	. .	5,430,439	1950
1951	377,754	75,721	2,785	12,285	95,257	7,120	570,922	1,030,080	971,971	74,273	368,611	36,785	2,481,720	. . . .	3,052,642	1951
1952	5,730	10	. . . .	. . . .	. . . .	. . . .	5,740	60,116	34,694	1,513	1,317	2,450	100,090	. . . .	105,830	1952
1953	1,335	. . . .	. . . .	. . . .	. . . .	. . . .	1,335	41,340	18,902	1,773	679	55	62,794	. . . .	64,084	1953
1954	123,215	12,256	65	155	30,516	. . .	216,207	571,945	488,981	39,426	91,377	29,292	1,221,021	. . . .	1,437,228	1954
1955	292,234	61,128	. . . .	4	3,887	11,340	368,593	578,551	334,740	89,323	164,880	1,706	1,169,200	. . . .	1,537,793	1955
1956	97,760	32,945	. . . .	. . . .	6,712	1,260	138,677	326,852	211,849	22,313	82,059	17,900	660,973	. . . .	799,650	1956
1957	199,220	25,488	. . . .	. . . .	. . . .	6,801	231,509	181,539	27,162	. . . .	. . . .	61,269	269,970	. . . .	501,479	1957

NOTE:- Figures for 1957 are preliminary totals from official sources. Those for previous years have been corrected from statistics of the California Division of Fish and Game.

Full segregation of the various sizes is not available for years prior to 1926 and is estimated for 1957.

* Where sizes are not segregated, they are combined with 1-lb. Talls. Figures for years prior to 1950 are given in cases "as they run", without reduction to standard cases. The great majority of the production, however, consists of 48-lb. cases. Figures for "Other Sizes" in 1950 and after have been reduced to standard cases, equivalent to cases of 48 - 1-lb. ovals.

where he will serve as general administrative assistant to Alaska Packers Association President Aubin R. Bathold, with headquarters in Seattle.

• Cannery Row Properties Co., Monterey, purchased the Edgewater Packing Co. plant at Monterey. The plant is being dismantled and the machinery sold.

Carquinez Fisheries, one of the few remaining sardine reduction plants on Pt. San Pablo, Richmond, Calif., was sold by John Sostanza, managing partner, to Westgate California Tuna Packing Co., San Diego, for installation in northern Peru.

Port Costa Packing Co., Moss Landing, Calif., sardine reduction and fish canning plant owned by Pacific Vegetable Oil Corp., Richmond, Calif., was sold to Berglund Sales & Engineering Co., San Francisco. Mr. Berglund intended to dismantle the plant and sell the machinery.

The sardine reduction equipment on the concrete ship *Peralta* now anchored at Antioch, Calif., where it has been for the past 10 years, has been removed and was being sold through James R. Townsend, San Francisco fisheries consultant.

Good and bad news for California's sardine, anchovy, jack and Pacific mackerel fishing industries was contained in the progress report of the California Cooperative Oceanic fisheries Investigation.

The good news was that the anchovy population off southern California has probably doubled in numbers since 1951.

• What might be a glimmer of hope for the sardine industry in future years is that sardines spawned off southern California again in 1956 and schools appeared off Port Hueneme in late June. None of the year classes in the fishery approach the strength of the rapidly disappearing 1948 year class, the last one comprising satisfactory numbers, according to the report.

The past five years have seen the large jack mackerel become one of the prized sport fishes of California. The catch was 40,000 fish in 1955. During this period it was learned that the jack mackerel spawns extensively off the northwestern coast of the United States during August, eggs and larvae being found far out at sea.

The report said that the available Pacific mackerel is at a low level. Nearly half of some year classes are caught before they are two years old. The available population in the 1950s is much smaller than in the 30s and 40s.

Anchovies Give Ground In 1957

• Anchovy canning in California slipped sharply in 1957 to 412,741 cases from approximately 700,000 cases in 1956.

Reason? The fish were scarce, and not to be found in the exceptional volume they had registered in previous years. The decline was considered to be the manifestation of a cycle in abundance, as it followed immediately upon the largest pack of this fish that California has ever produced.

Again, with mackerel extremely abundant in Southern California during the late months of the year, the fleet was attracted to that fishery in preference to anchovies.

Most of the year's production was in Southern California, and most of that was in the spring months of the year when the net boats could concentrate primarily on this little fish after the close of the sardine season and the dwindling of the mackerel catch from its peak.

• Favorite style of anchovy pack continues to be the round 5-oz. tin with tomato sauce, but there was some packing in 1-lb. ovals, as well as the half-pound oblong tin. These fish continue to find their principal market as a small-sized substitute for sardines, a field in which some food experts consider them actually superior to pilchard sardines.

• Northern California's anchovy catch and pack was far off in 1957, from the catch and pack in 1956.

For the first 10 months of 1956 the catch brought into San Francisco, Moss Landing, and Monterey, was 4,723 tons, or 5,023 tons for the entire year, while for the first 10 months of 1957 the catch was but 740 tons.

The 1957 pack of course reflected the small catch. While for the year of 1956 some 160,170 cases of anchovies were packed, for the first 10 months of 1957 only 24,303 cases were packed.

Canned fish market observers reported that the main cause of the poor catch of anchovies in northern California was that "when the fish were there there was no demand for canned anchovies, and when the demand was there there were no fish."

Price to fishermen was $25 per ton, but nobody got rich on that, since fishing was sporadic, catches small, and far between.

The price for 15-oz. ovals in tomato sauce was $6.75 as the year closed, and for 5-oz. 100's $5.50 per case. There was not much trading during the year, nor much interest.

1957 - CALIFORNIA ANCHOVY PACK - 1957

MONTH	Tons Delivered	1-lb Oval	1-lb. Tall	8-oz. Buffet	8-oz. Oblong	5-oz. Round 100's	Total	MONTH
January '57	2,859	6,857	. .	1,090	1,710	61,598	71,255	'57 January
February	2,992	12,997	...	3,783	6,748	46,631	70,159	February
March	2,333	9,642	...	8,286	10,167	20,253	48,348	March
April	2,523	9,834	..	...	19,381	24,592	53,807	April
May	2,737	16,713	...	1,170	7,558	40,343	65,784	May
June	1,718	4,424	. .	3,390	698	23,776	32,288	June
July	1,889	...	...	740	..	38,356	39,096	July
August	1,223	...	.	521	6,286	14,627	21,434	August
September	...	...	...	...	...	..	...	September
October	483		...	...	...	7,889	7,890	October
November	298	...	...	..	...	2,235	2,235	November
December	54	...	...	...	...	445	445	December
TOTAL	19,109	60,468	...	18,980	52,548	280,645	412,741	TOTAL

MACKEREL

1957 - California Mackerel Pack - 1957

PACIFIC MACKEREL				MONTH	JACK MACKEREL				All Mackerel Cases
Tons Delivered	Cases 1-lb. Cans	Cases Other Sizes	Total Cases		Tons Delivered	Cases 1-lb. Cans	Cases Other Sizes	Total Cases	
1,606	54,271	..	54,271	January '57	9,121	157,597	9,838	167,435	221 70
3 064	42,374	600	42,974	February	9,374	184,847	34,591	219,438	262,41
336	6,991	20,970	27,961	March	4,374	63,134	967	64,101	92,06
386	16,875	..	16,875	April	2,180	32,365	159	32,524	49,39
418	8,523	580	9,103	May	1,686	26,881	906	27,787	36,89
759	21,624	.	21,624	June	2,396	34,941	3,075	38,016	59,64
646	7,642	.	7,642	July	475	7,467	..	7,467	15,10
4,856	53,208	...	53,208	August	1,474	35,766	..	35,766	88,97
812	11,488	.	11,488	September	1,531	29,652	...	29,652	41,14
6,811	110,921	...	110,921	October	5,377	102,891	326	103,217	214,13
6,263	114,288	. .	114,288	November	4,922	120,340	2,645	122,985	237,27
592	17,767	...	17,767	December	257	4,758	...	4,758	22,525
26,749	465,972	22,150	488,122	TOTALS	43,167	800,639	52,507	853,146	1,341,268

Mackerel on the March

In 1957

- Mackerel was marching in California in 1957, the year's production again topping 1 million cases, and by a substantially wider margin than in 1956.

The 1,341,268 cases put 1957 into third place among all the years that California has packed this product.

Even more significant was the continued evidence of a comeback in Pacific mackerel, where the pack of 488,122 cases was the second best of authentic record, and only 20,000 cases under the all-time high, packed in 1949.

Pacific mackerel production in 1956 was good also — 472,758 cases — and the consistent gain is highly encouraging to California fishermen and canners.

There was a period, from 1952 through 1955 when the Pacific mackerel resource was in poor condition, giving grounds for serious fear that it might have suffered crippling depletion.

- Jack mackerel pack for 1957 made a handsome gain over 1956, reaching 853,146 cases for the best pack since 1952.

Fishing for these species was done largely by the sardine fleet, which now gives more attention to mackerel in the scarcity of sardines.

The exceptionally good pack figures of 1957 were reached despite the fact that a very considerable tonnage of this fish is used in Southern California in the production of pet foods, particularly those formulated fundamentally for cats.

- After settlement of the school fish price disputes at San Pedro in November, the fleet went after sardines and mackerel in earnest. Although the sardine showing was poor, the boats were soon placed on a daily catch limit for mackerel, which was abundant and available.

Both species of mackerel, Pacific and Jack, sold to canneries at $42.50 per ton. On the wholesale mark canned mackerel sold at $5.75-6. per case of 48 one-lb. cans of Pacif No. 1 talls and at $5.25-5.75 for Ja mackerel, f.o.b. canners' termina Prices paid for the canned pack coi cide exactly with those of 1956. Pric paid the producers for raw fish in 19 were $45 per ton for Pacific macker and $42.50 for Jack.

Retail prices varied from 19 to 2 per can with no differential accordi to brands. Sales were up from 195 and bore out the opinion of Charl R. Carry, director of the Californ Fish Canners Association, who aver that "canned mackerel is one of t best food buys available today."

Exports of mackerel from the Unit States in 1957 stood at about 13,22 000 lbs., with the Philippines taki more than 11½ million pounds, whe in 1956 the Philippines imported on 2,375,000 lbs. of U. S.-produced mac erel. In 1957 El Salvador was ne largest buyer, taking about 850,000 l

California Mackerel Production by Species

Year	PACIFIC MACKEREL			Total Cases All Mackerel	JACK MACKEREL			Year
	Central California	Southern California	Total Pacific Mackerel		Total Jack Mackerel	Southern California	Central California	
1948	7,269	381,732	389,001	971,646	582,645	429,923	152,722	1
1949	994	506,424	507,418	924,104	416,686	362,977	53,709	1
1950	4,155	371,055	375,210	1,410,541	1,035,331	707,858*	327,473	1
1951	5,448	365,956	371,404	1,040,300	668,896	650,274	18,622	1
1952	2,509	216,011	218,520	1,573,745	1,355,225	1,335,416	19,809	1
1953	.	71,222	71,222	598,305	527,083	516,839	10,244	1
1954	14,495	213,452	227,947	383,500	155,553	80,057	75,496	1
1955	12,012	194,520	206,532	564,672	358,140	272,658	85,482	1
1956	102,687	370,071	472,758	1,131,462	658,704	528,317	130,387	1
1957	*	*	488,122	1,341,268	853,146	*	*	1

* Regional segregation not available for 1957.

Canned Salmon Wooing Food Buyers of Tomorrow

- Canned salmon marketing in the United States during 1957 produced something more than sales.

- Out of the year came a resumption of industry promotion and merchandising of its product on an all-salmon commodity-wide basis which would emphasize salmon as an economical, nutritious, colorful, zestful food of special appeal to the young homemaker with a growing family. Decision to undertake this program on a continuing basis was reached by the industry in the fall of 1957 despite the fact that the volume of salmon available for sale was low. It was reached by merchandisers and packers convinced that salmon should maintain its place as an American food of special value, and particularly that it should seek the place in the esteem and confidence of the new generation of American mothers that it enjoyed from *their* mothers and grandmothers.

- Out of the year also came a massive movement from the Federal Trade Commission against marketing prices within the salmon business.

By early 1958 there were pending F.T.C. complaints against 10 or a dozen canned salmon sellers representative of a wide variety of individual and corporate patterns.

So also the complaints varied. Some charged general violations of the Layton Act. Others were quite specific. All were concerned primarily with allegations that the sales companies had violated terms of the Clayton Act requiring equal terms to buyers and forbidding the payment of brokerage to companies which had not in fact performed any brokerage service, or which could not qualify as brokers under the F.T.C. interpretation of the legal definition.

Prevalent opinion as this *Yearbook* went to press was that the commission had not by any means exhausted its stock of complaints, and that others would be issued from time to time. Spokesmen for the firms named professed to believe that they had done no wrong, or at least had done nothing which was not common practice throughout the food brokerage business.

Defendants Deny Charges Of Illegal Brokerages

- The Federal Trade Commission charges were brought against a broad segment of salmon sellers, including sales departments of packing companies and independent sales agents or brokers.

In answering the first group of complaints, packers' sales departments denied granting large grocery chains discounts or allowances in lieu of brokerage; or that on direct sales which do not involve brokers the market price to the chains was reduced by 5%, the amount of the normal brokerage fee. They also deny giving a 2½% reduction where only one broker is involved, taking the price differential out of the broker's commission.

One of the packers in the first flurry of complaints admits selling a lot of 5,000 cases of Pinks at 50c per case under the original quotation; but denies that this was an illegal brokerage payment, characterizing it rather a price cut to get the business.

In general the defendants contended that price reductions were not properly to be considered as illegal brokerage payments, but were in fact competitive price cuts designed to make sales, and would have been made at the time in question to any responsible

Pacific Canned Salmon Packs and Values

Packs reduced to basis of full cases of 48 lbs. net. Values calculated from best data available

Year	Alaska		Washington		Oregon		California		U.S. Total		British Columbia		Grand Total	
	Cases	Value ($)	Cases	Value ($)	Cases	Value ($)	Cases	Value($)	Cases	Value ($)	Cases	Value ($)	Cases	Value ($)
1939	5,239,211	35,110,571	478,246	3,944,000	251,070	3,640,898	...	...	5,971,527	42,695,469	1,539,070	10,449,945	7,510,597	53,145,[illegible]
1940	5,028,378	31,828,451	222,808	2,825,000	297,716	4,129,220	...	...	5,548,902	38,782,681	1,467,227	11,427,923	7,016,129	50,209,908
1941	6,966,503	57,466,702	431,311	6,162,000	399,840	5,925,444	1,125	13,500	7,798,779	69,567,646	2,248,870	18,406,545	10,047,649	87,974,191
1942	[illegible]	[illegible]	366,065	6,909,000	397,331	6,890,162	...	...	5,852,515	62,476,671	1,811,560	20,050,238	7,664,075	82,526,909
1943	5,396,509	[illegible]	149,175	2,309,000	130,707	2,857,246	767	16,000	5,677,158	63,761,440	1,258,221	11,673,469	6,935,379	75,434,909
1944	[illegible]	51,606,544	81,490	1,774,000	[illegible]	3,445,244	864	17,660	5,119,943	56,843,448	1,097,558	11,479,093	6,217,521	68,322,541
1945	[illegible]	[illegible]	414,258	4,845,000	155,292	3,287,812	2,755	38,000	4,913,335	52,699,776	1,739,311	18,409,962	6,652,646	71,109,738
[illegible]	[illegible]	58,667,561	[illegible]	13,020,000	[illegible]	7,165,645	5,034	153,000	4,568,149	79,006,206	1,348,138	17,532,462	5,916,287	96,538,668
[illegible]	[illegible]	91,297,885	957,429	[illegible]	[illegible]	11,133,690	13,917	513,000	5,612,664	124,364,575	1,505,157	24,900,000	7,117,379	149,264,575
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10,956,513	11,417	366,095	4,824,966	120,537,196	1,308,137	26,579,000	6,133,103	147,116,196
[illegible]	[illegible]	[illegible]	[illegible]	17,481,282	[illegible]	4,665,290	1,113	21,240	5,524,916	103,430,980	1,436,464	27,654,489	6,961,380	131,085,469
[illegible]	[illegible]	[illegible]	[illegible]	18,285,000	[illegible]	6,193,000	...	...	4,119,047	105,881,511	1,482,560½	30,155,177	5,602,056½	138,885,502
[illegible]	[illegible]	[illegible]	906,252	[illegible]	[illegible]	6,631,198	...	...	4,713,261	112,638,502	1,955,475	46,261,080	6,668,736	158,899,582
[illegible]	[illegible]	[illegible]	743,591	17,122,552	140,565	4,784,421	703	20,292	4,455,022	99,636,808	1,293,435	27,751,435	5,741,490	127,388,243
[illegible]	[illegible]	60,987,334	848,422	[illegible]	[illegible]	4,063,675	436	15,425	3,911,333	83,747,184	1,821,269	35,060,600	5,732,602	118,807,784
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	92,291	3,130,700	2,162	65,431	4,163,147	92,280,544	1,742,736	39,293,176	5,905,883	131,573,720
[illegible]	[illegible]	[illegible]	764,719	[illegible]	138,250	4,996,355	847	30,611	3,286,785	81,293,168	1,406,100	31,644,673	4,692,885	112,937,841
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5,401,329	694	25,424	3,432,658	93,472,748	1,118,279	32,231,241	4,550,937	125,703,989
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4,661,531	327	11,752	3,187,571	86,528,281	1,443,267	36,423,414	4,630,838	122,951,695

[illegible] re from original sources, and are based on origin of fish canned. Data for previous years generally are from officia[illegible] [illegible] origin in cases where fish caught in one area are canned in another.

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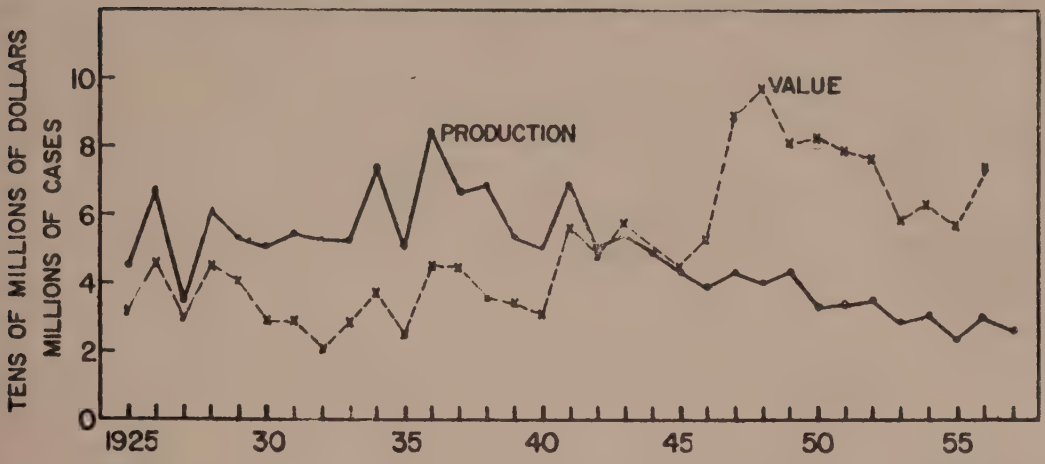
Production and Value of Alaska Canned Salmon



buyer with bona fide interest in securing an equal quantity of salmon.

There are a number of questions about the F.T.A. salmon selling complaints as yet unanswered:

How many more companies will be involved in the charges?

Have any of those charged already accepted consent decrees? If so, won't their cases be specially complicated?

What, or who, triggered the F.T.C. investigation? And were they in turn investigated?

Won't the hearings tend to clarify salmon selling practices and perhaps draw more clearly the definition of brokerage services?

Won't the hearings produce a better understanding of the difference between a competitive price reduction designed to make a sale and an illegal brokerage payment?

Won't they tend to draw once for all the rules under which salmon may, or *must*, be sold?

Salmon Promotion Program Wins Widespread Support

● The salmon promotion and advertising campaign went into 1958 with support of approximately 90% of the American canned salmon pack of 1957, and including contribution on a per-case basis from a number of the imports of foreign salmon.

The campaign was entrusted to the firm of Cole & Weber, Seattle and Portland advertising and public relations agency. Direction is through two committees with separate functions. That representative of management and finance is headed by Leo T. Kreielsheimer, president of Kadiak Fisheries Co. and the Chignik Fisheries Co. The other is a group of merchandising specialists working with the problems of policy and presentation. This group is headed by L. S. Petersen, sales manager, New England Fish Co.

The program got underway early in 1958 with a pre-Lenten advertising spread, followed by food page and radio food and recipe services; home economics teachers' helps, a salmon motion picture film; point of sale material, recipe booklets, and a fact book for food editors.

● Salmon selling continued to the end of 1957 without major revision following the early fall pricing; but with the New Year came a correction in the Chum price which took summer Chums down to $18 and fall pack goods to $16.50 or $17. This action had been building up for some time, although some of the stronger factors doubted the necessity from the merchandising standpoint of a $5 spread between Pinks and good Chums.

● Braking effect of high prices produced by high costs on the rate of movement of canned salmon was a matter of primary concern to sellers throughout most of 1957. The amount to be sold wasn't great—and of course that was the prime factor in establishing high price.

High unit costs because of low volume of pack; high prices because of high costs; slow movement because of peak retail tags—but not so slow that it did not serve to sell the supply in the course of the year.

That's pretty much the way it went through 1957, but no one considered it very sound merchandising, and all seemed relieved that solid trouble was avoided.

● Whether lasting damage was being done to consumer esteem for canned salmon gave thoughtful merchandisers food for their thoughts.

Such turned once more to a project for industry-supported promotion to stimulate interest in canned salmon on its merits as a delicacy — traditional, nutritious, colorful; too good to be missed because scarcity made it dearer than it used to be when grandma was a girl.

Strength and zest and stimulus had marked the market before when production prompted retailer response—and the industry seemed convinced that it should recapture the point of advantage once more

● The Chicago conventions in February produced no market-shaking developments, and not much business either. Buyers complained of prices and their effect, real and forecast; but the chant that "salmon is priced out of the market" was raised with less urgency and conviction than usual.

As a matter of fact, some seemed actually to doubt it. The song had been sung so long since it last had been confirmed that some critics were coming to wonder if it made realistic allowance for the effect of creeping inflation on all foods.

● Late spring produced a revision of $2 downward in the $23 price which the largest factors in the business had been maintaining on their Red halves—maintaining in lonely grandeur while the rest of the industry was selling at $21.

Thus it could not be said that the "correction" was a price cut; but rather that it was a getting-into-step with the rest of the Army.

There was not question that salmon sales lacked vigor in the late spring and early summer of 1957; and actually the primary market showed

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signs of nervousness, for reasons that it could not fully identify.

Actually, nothing happened, so far as selling was concerned. In the production field another deep disappointment developed—first on Bristol Bay; then the Peninsula; then Kodiak; then Southeast Alaska; then in Puget Sound Pinks.

- By mid-summer the primary salmon market was girding its loins for another lap on the same old track—short pack, scant supplies, augmenting imports, high prices, stifled interest.

A clean start characterized the running, with opening prices announced crisply and in the traditional manner which had virtually fallen into the discard in recent years. As in the old days, when "The Corporation" spoke the word and the rest of the industry fell in line, or took a position slightly lower, Calpak named 'em in the middle of August—somewhat to the consternation of those who felt it was then far too early to pick a price for Pinks, when the Puget Sound pack had not yet been started.

Nevertheless, the prices were out: Red talls, $34, halves $23, advertised brands; Pinks, advertised, $23 and $14.50; Pinks, unadvertised, $23 and $13.50; Cohoes, $30 and $16.50; Chums $21 and $20 for talls, $12 for halves.

Reaction of the independents was immediate, and they took a dollar off the Red tall price to $33, and marked their Red halves $2 under at $21. Chum talls soon settled to $19 for summer run, with $18 for fall goods. This Chum pricing rather quickly was accepted all along the line.

- Export trading seemed rather uncertain for a time on the basis of the short pack, but by the end of August a fair volume of Alaska Red talls and some Cohoes had been committed to the United Kingdom.

Pack of Alaska Canned Salmon by Species and Values

Salmon fishing in Alaska commenced in 1878, but no segregation of the packs by species is available prior to 1896, while the valuations were not recorded prior to 1905. Earlier total packs, starting with 8,159 cases in 1878, ranged from 6,539 cases in 1880 to a peak of 801,400 in 1891, the output in 1895 being 626,530 cases. The average from the beginning through 1895 was 291,973 cases.

Values are based on opening prices, or on prices at which the bulk of the packs were sold.

YEAR	RED, SOCKEYE		PINK		CHUM		COHO		KING		TOTAL		YEAR
	Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value	
1896	806,010	...	111,986	...	452	...	37,017	...	11,242	...	966,707	...	1896
1897	688,581	...	157,711	...	1,396	...	43,557	...	17,833	...	909,070	...	1897
1898	782,941	...	109,399	...	5,184	...	54,711	...	12,862	...	965,997	...	1898
1899	864,254	...	149,159	...	1,931	...	39,402	...	23,400	...	1,078,146	...	1899
1900	1,197,406	...	232,022	...	30,012	...	50,984	...	37,715	...	1,548,139	...	1900
1901	1,319,335	...	541,427	...	47,464	...	65,509	...	43,069	...	2,016,804	...	1901
1902	1,685,546	...	549,602	...	159,849	...	82,723	...	59,104	...	2,536,824	...	1902
1903	1,687,244	...	355,799	...	35,052	...	120,506	...	47,609	...	2,246,210	...	1903
1904	1,505,548	...	299,333	...	21,178	...	85,741	...	41,956	...	1,953,756	...	1904
1905	1,574,428	$5,335,547	168,579	$498,194	41,972	$113,056	67,394	$215,875	42,125	$141,999	1,894,516	$6,304,671	1905
1906	1,475,961	5,620,875	348,875	1,046,951	254,812	730,235	109,141	382,109	30,834	116,222	2,219,044	7,896,392	1906
1907	1,295,113	5,915,227	561,973	1,799,290	184,173	547,757	85,190	337,384	43,424	181,718	2,169,873	8,781,366	1907
1908	1,651,770	7,524,251	644,133	1,733,379	218,513	554,197	68,827	274,089	23,730	99,867	2,606,973	10,185,783	1908
1909	1,705,302	7,610,550	464,873	1,114,839	120,712	274,110	56,556	231,029	48,034	207,624	2,305,477	9,438,151	1909
1910	1,450,267	7,774,390	554,322	1,764,055	254,218	773,409	114,026	559,666	40,221	214,802	2,413,054	11,086,322	1910
1911	1,320,705	8,552,512	1,021,356	4,493,966	303,823	1,215,692	120,704	752,283	45,378	363,024	2,820,966	16,198,833	1911
1912	1,904,258	10,776,987	1,303,365	3,410,928	638,528	1,600,444	170,384	791,023	52,594	310,847	4,060,129	16,890,229	1912
1913	1,964,379	9,136,616	1,402,916	3,687,446	267,654	623,424	77,377	271,078	34,167	140,914	3,746,914	13,859,478	1913
1914	2,201,574	12,482,110	997,823	3,600,075	662,478	2,260,614	157,792	735,219	48,165	281,924	4,067,832	19,719,942	1914
1915	1,922,296	11,907,202	1,870,373	5,619,436	484,408	1,356,469	126,570	588,903	85,694	458,000	4,489,341	19,930,010	1915
1916	2,119,442	13,147,994	1,753,546	6,446,168	715,238	2,434,627	265,184	1,430,143	66,179	364,496	4,919,589	23,823,428	1916
1917	2,484,881	29,058,778	2,298,466	15,120,419	877,713	5,375,713	193,708	1,634,600	67,552	660,868	5,922,320	51,850,017	1917
1918	2,618,559	25,313,837	2,418,212	16,142,604	1,366,859	8,756,598	216,572	2,068,784	57,367	596,000	6,677,569	52,877,823	1918
1919	1,265,543	17,143,017	1,657,434	14,982,542	1,348,462	9,450,772	230,229	2,809,310	90,533	1,131,662	4,592,201	45,552,714	1919
1920	1,475,780	19,851,816	1,613,434	9,751,845	1,022,708	4,712,575	192,311	1,579,963	91,276	1,154,013	4,395,509	37,050,212	1920
1921	1,758,794	16,539,177	440,471	1,938,263	247,606	990,424	109,783	649,480	48,319	352,699	2,604,699	20,470,043	1921
1922	2,075,397	19,719,158	1,657,556	7,709,011	562,496	2,369,396	174,312	949,312	31,604	258,799	4,501,428	31,006,027	1922
1923	1,878,330	17,727,572	2,455,136	12,337,580	527,145	2,542,759	163,752	957,439	38,977	344,078	5,063,340	33,909,428	1923
1924	1,449,724	14,840,946	2,613,068	13,191,793	1,027,183	4,931,172	182,207	1,312,969	33,741	304,809	5,305,923	34,581,689	1924
1925	1,065,290	15,243,243	2,105,240	11,473,271	1,065,395	4,701,847	164,199	1,702,243	50,774	682,235	4,450,898	33,802,839	1925
1926	2,157,087	21,328,739	3,338,349	17,987,527	902,443	4,518,929	202,527	1,700,563	52,476	544,247	6,652,882	46 080,005	1926
1927	1,320,563	16,880,670	1,414,756	8,638,551	507,641	2,761,638	252,629	2,307,569	70,438	853,100	3,566,072	31 441,534	1927
1928	1,944,061	18,902,050	2,785,464	18,512,649	991,504	564,567	297,886	2,140,685	51,195	505,017	6,070,110	45,624,968	1928
1929	1,693,050	19,388,299	2,570,506	15,551,647	860,876	4,659,754	172,070	1,302,887	73,740	769,869	5,370,242	41,672,456	1929
1930	848,787	11,172,954	3,150,652	12,773,894	596,000	2,162,306	329,988	3,011,505	63,560	764,254	4,988,987	29,884,813	1930
1931	1,695,782	16,161,532	2,978,512	10,226,769	536,909	1,726,203	170,208	1,119,332	51,124	462,800	5,432,535	29,696,636	1931
1932	2,104,727	10,803,982	2,116,573	6,368,695	821,128	2,301,408	149,351	606,798	68,709	368,522	5,260,488	20,449,405	1932
1933	2,182,371	14,649,771	2,183,443	10,498,358	658,245	3,028,584	161,633	884,276	41,006	345,310	5,226,698	29,406,294	1933
1934	2,626,002	17,687,617	3,822,602	15,349,445	735,055	2,651,538	235,560	1,197,000	51,367	155,230	7,470,586	37,040,830	1934
1935	823,175	7,216,754	3,254,528	13,767,517	852,730	3,414,160	188,918	1,263,479	36,475	348,024	5,155,826	26,009,934	1935
1936	2,482,555	19,648,482	4,589,270	18,430,508	1,106,983	4,094,532	218,232	1,453,566	57,908	452,125	8,454,948	44,079,213	1936
1937	2,101,154	21,590,206	3,619,298	18,151,343	729,114	3,507,933	135,078	1,096,905	69,394	682,031	6,654,038	45,028,418	1937
1938	2,523,123	19,663,910	3,222,104	12,350,571	786,859	2,848.266	216,732	1,342,715	42,726	341,788	6,791,544	36,547,250	1938
1939	1,971,338	18,560,539	2,509,519	12,656,697	626,412	2,905,286	103,156	708,013	28,036	280,036	5,239,211	35,110,571	1939
1940	953,381	9,402,841	2,908,025	15,770,772	860,539	4,312,766	284,130	2,122,330	22,303	219,742	5,028,378	31,828,451	1940
1941	1,164,888	15,952,391	4,636,649	32,593,271	710,507	4,844,060	356,213	3,595,982	38,246	480,998	6,906,503	57,466,702	1941
1942	912,006	13,804,764	2,818,650	22,565,374	942,789	7,178,696	372,537	4,442,108	43,127	686,567	5,089,109	48,677,509	1942
1943	1,982,175	30,381,755	2,322,057	18,701,467	882,578	6,755,829	158,734	1,937,981	50,965	802,162	5,396,509	58,579,194	1943
1944	1,580,757	24,254,327	2,087,322	16,924,966	985,725	7,565,526	187,053	2,278,938	36,939	584,787	4,877,796	51,608,544	1944
1945	1,173,356	18,260,328	2,239,282	18,201,352	688,485	5,312,578	195,860	2,078,066	41,709	676,640	4,338,692	44,528,964	1945
1946	1,065,898	22,880,873	2,057,121	24,685,452	617,155	7,120,923	193,061	3,231,992	37,874	748,321	3,971,109	58,667,561	1946
1947	1,876,239	45,390,823	1,723,617	32,269,419	500,211	8,983,297	148,715	3,522,434	53,684	1,131,912	4,302,466	91,297,885	1947
1948	1,635,463	44,994,233	1,304,044	31,617,066	774,661	16,345,475	241,799	6,278,595	54,645	1,459,245	4,010,612	100,694,614	1948
1949	967,626	25,504,967	2,682,330	42,921,708	499,226	7,572,386	192,352	4,004,944	50,007	1,258,463	4,391,541	81,262,468	1949
1950	1,166,052	34,211,966	1,095,534	25,663,330	780,684	15,269,095	191,501	5,131,834	54,321	1,550,183	3,288,092	81,826,408	1950
1951	816,831	26,017,227	1,559,748	32,505,086	721,152	10,950,656	345,159	5,131,859	91,425	2,596,635	3,534,315	77,201,463	1951
1952	1,181,162	33,783,498	1,172,168	21,705,200	966,660	15,140,209	197,004	4,201,837	56,970	1,521,732	3,573,964	76,352,476	1952
1953	994,293	27,996,373	955,528	17,439,908	800,882	11,214,236	127,676	2,894,714	56,222	1,442,103	2,934,601	60,987,334	1953
1954	804,194	23,235,032	1,149,422	22,477,095	1,029,295	15,093,798	171,643	3,926,204	52,600	1,407,488	3,207,154	66,139,617	1954
1955	661,607	21,045,719	1,270,303	27,044,751	363,657	6,322,832	114,584	3,056,498	47,818	1,369,984	2,457,969	58,839,784	1955
1956	1,015,558	34,912,265	1,116,769	24,927,897	675,034	12,873,940	95,940	2,763,127	47,053	1,471,651	2,950,354	76,948,880	1956
1957	825,158	29,707,907	739,460	17,274,887	850,717	15,215,725	87,809	2,456,400	53,116	1,642,888	2,556,260	66,297,807	1957
Aver	1,111,902	31,709,210	1,402,946	27,854,146	7,111,462	11,976,592	182,637	3,994,205	56,475	1,520,940	3,465,107	77,155 093	Aver

NOTE:- Figures for the last year shown are Pacific Fisherman's own compilation from original sources, and include fish canned elsewhere from salmon caught in Alaska. Figures for previous years are from official Fish & Wildlife Service data, to which have been added fish canned elsewhere from fish caught and frozen in Alaska. "Average" are for the 10 years preceding the current year.

O. J. McDONALD, Vancouver, B. C.

GEORGE A. DEW, San Diego, Calif.

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A. W. BRINDLE, Seattle, Wash.

- **Mr. McDonald** is managing director of Queen Charlotte Fisheries, Ltd., and in 1957 was elected president and chairman of the board of the Fisheries Council of Canada.

- **Mr. Dew** in 1957 became president of Breast-O'-Chicken Tuna, Inc., and director of operations of its parent corporation, Westgate-California Tuna Packing Co. Previously he had been in charge of Westgate operatons in Peru.

- **Mr. Brindle** is president of Wards Cove Packing Co., with canneries at Ketchikan and Naknek, Alaska, and is manager of the Frank B. Peterson Co., Seattle. In 1957 he was elected president of the Association of Pacific Fisheries at its 44th convention. In 1954 and 1955 he served as president of Alaska Salmon Industry, Inc.

Short Packs and Competitive Pressures

• Short packs, continuing competition from Japan, the necessity to maintain a high price level to meet rising costs of production, and opposition to the entry of canned Pinks into the U. S., were a few of the problems that faced British Columbia's salmon industry during 1957.

Packers had little difficulty in disposing of their stocks in the domestic market, partly because they did not have an enormous volume to offer. At the year-end, Sockeye was becoming increasingly hard to supply and grocery shelves were being rapidly cleared. There was plenty of Coho and Chum to be had.

Since Canada is one of the few markets open to the British Columbia canned salmon trade without restrictions of one kind or another, every effort has been made during recent years to create greater demand in that area, and the promotion campaign has been successful, notwithstanding some consumer resistance to the higher retail prices necessitated by production costs.

In view of the relatively small domestic pack of Sockeye it was considered expedient to import Red salmon to meet any deficiency that might develop on the Canadian market. About 200,000 cartons of Japanese Red salmon were purchased as insurance against shortage. It was generally expected that it would be unnecessary to repeat such a deal in 1958 in view of the promise of a bountiful Adams River run of Sockeye on the Fraser next summer, but no one was writing off the possibility entirely. It was recalled that when B. C. Canners first imported Japanese canned salmon in 1956 to round out and balance their supplies, the move had been regarded as an emergency measure unlikely to be repeated. Actually, in 1957, more Red salmon was bought from Japan than in 1956.

Competitive Pressure Strong

• Last year, as in other years, B. C.'s own canned salmon was encountering stiff competition from Japan all over the world. It was surprising to some traders how B. C. was able to hold its own in the face of the big volume and low prices offered by the Japanese everywhere. Quality reputation, tradition and in some cases preferential tariff were factors working to the advantage of British Columbia, and in view of this continuing popularity of the Canadian pack the industry was all the more interested in programs to build the resource and increase production.

During the latter part of the year the trade was somewhat disturbed by proposed U. S. legislation that might make it unnecessary to prove harm to the domestic industry when applying dump duties against imports of Canadian canned fish. Some concern was

BRITISH COLUMBIA CANNED SALMON PRICES

YEAR	SOCKEYE 1-lb. Talls or Flats 48's	SOCKEYE ½-lb. Flats 96's	SOCKEYE ¼-lb. Flats 96's	COHO, SPRING, BLUEBACK 1-lb. Talls or Flats 48's	COHO, SPRING, BLUEBACK ½-lb. Flats 96's	COHO, SPRING, BLUEBACK ¼-lb Flats 96's	PINK 1-lb. Talls or Flats 48's	PINK ½-lb. Flats 96's	PINK ¼-lb. Flats 96's	CHUM 1-lb. Talls or Flats 48's	CHUM ½-lb Flats 96's
1942-4b	$16.25	$17.50	$10.50	$11.50	$12.75	$ 8.12½	$ 6.25	$ 7.50	$ 5 00	$ 6.25	$ 7 50
1945-6b	17.65	18.90	11.20	12.90	14.15	8.82½	7.65	8.90	5.70	7.65	8 90
1946-c	18.90	20.30	..	13.90	15.25	...	8.30	9.70	...	8 30	9 70
1947	23.50	25.00	15.00	20.00	21.50	13.00	12.50	14.50	. .	12 00	13 50
1948	28.50	30.00	17 50	24.50	26.00	15.25	16.50	18.00	...	15.00	16 50
1949	31.50	33.00	19.00	23.50	25.00	15.00	16.50	18.00	...	12 50	14 00
1950	31.50	33.00	19.25	23.50	25.00	15.00	17.50	19.00	12.00	14 00	14 00
1951	36 00	38.00	21 50	27.50	29.00	17.00	19.00	20.50	12.75	16 50	18 00
1952	31.50	33.00	19 00	20.50	22.00	13.50	15.00	16.50	10 75	13 00	14 50
1953	28.50	30.00	17.50	20.50	22.00	13.50	15.00	16.50	10.75	13.00	14 50
1954	30.00	32.00	18.50	22.50	24.00	14.50	16.00	17.50	11 75	14.50	15 50
1955	35.50	37.00	21 50	26.50	28.00	17.00	18.00	19.50	12 75	15 00	16 50
1956	38.50	40.00	23 00	30.50	32.00	19.00	21.00	22.50	14.25	19 00	20 50
1957	38 50	40.00	23.00	27.50	29 00	17.50	21.00	22.50	14.25	18 00	19 50

NOTE: - Quotations for 1948 and 1947 packs represent packers' opening prices to the domestic market. Prices received for 1950 sales under the contract to the United Kingdom were considerably less than those quoted. Prices marked 'c' were established by the Canadian government in Dec. 1946, for sales to the domestic trade, but are also roughly equivalent to those received for export to the United Kingdom, etc. Prices marked 'b' were those paid by the British Ministry of Food in 1945-46 and 1942 to 1944.
In 1954 there was considerable variation in prices by major packers, especially for Sockeyes and Chums Two prices were paid for Chums, according to grade, Fancy, $14.50 & $15.50; Standard, $13 and $14.50

AMERICAN CANNED FISH VALUES BY AREAS

YEAR	PACIFIC COAST						States Other than Pacific TOTAL	United States TOTAL
	Alaska	California	Oregon	Washington	TOTAL	% of Nat'l. Total		
1935	$26,072,966	$25,252,965	$ 2,851,987	$ 4,955,117	$ 59,133,035	78.8	$15,860,684	$ 74,993,719
1936	45,078,945	26,296,129	2,972,959	3,582,880	77,930,913	82.3	16,726,956	94,657,869
1937	45,041,499	30,741,773	4,163,681	5,276,928	85,223,881	81.2	19,713,750	104,937,631
1938	37,059,151	25,232,688	3,638,815	3,762,575	69,693,229	83.5	13,752,660	83,445,889
1939	34,775,988	31,639,354	4,622,664	5,192,077	76,230,083	79.0	20,228,510	96,458,593
1940	31,836,480	36,949,395	5,294,488	3,987,170	78,067,533	82.9	16,046,513	94,114,046
1941	56,453,007	39,830,950	7,704,434	7,130,960	111,119,351	80.1	27,564,806	138,684,157
1942	48,874,227	44,506,354	12,375,323	8,319,559	114,075,463	78.8	30,567,784	144,643,247
1943	58,479,130	46,842,918	7,242,950	2,975,728	115,540,726	81.8	25,615,584	141,156,310
1944	52,072,335	53,653,337	11,720,608	3,706,586	121,152,866	79.5	31,158,318	152,311,184
1945	45,491,662	60,219,179	12,543,519	7,326,616	125,580,976	82.0	27,219,595	152,800,571
1946	55,081,941	85,457,037	12,164,093	18,202,350	170,905,421	75.1	56,724,033	227,629,454
1947	89,135,362	116,493,682	20,626,850	24,949,347	251,205,241	80.9	59,475,179	310,680,420
1948	97,657,187	137,876,592	21,926,969	18,497,700	275,958,448	82.1	60,223,031	336,181,479
1949	82,225,067	119,497,465	13,683,517	23,009,231	238,415,280	80.6	57,088,625	295,503,905
1950	82,828,503	140,251,694	19,250,557	25,370,759	267,701,513	81.3	62,661,340	330,362,853
1951	80,748,052	122,572,382	15,454,209	27,312,377	246,087,020	81.7	55,123,275	301,210,295
1952	77,586,903	124,582,452*	14,284,187	21,362,466	237,816,008	77.7	68,013,190	305,829,198
1953	59,477,956	132,298,470	15,629,708	24,357,778	234,363,912*	76.5	72,515,896	306,873,674
1954	65,107,077	145,247,976	18,386,407**	32,524,805	261,266,265	78.9	69,760,245	331,026,510
1955	58,289,037	133,649,363	22,450,859***	25,671,266	240,060,525	79.1	63,514,935	303,575,460
1956	78,758,792	143,145,330	30,200,880§	18,452,364	270,557,366	77.8	77,009,097	347,566,463

*Includes Hawaii. **Includes Hawaii and Samoa. ***Includes Samoa, Hawaii, Puerto Rico.
§Includes Samoa, Hawaii, Puerto Rico and a minor quantity canned in Maryland.

INITIAL PRICES FOR CANNED SALMON

(Per case of 48 cans. Prices in dollars and decimals)

YEAR	Chinook Columbia Riv. Fancy	Sockeye Puget Sound	Red Alaska		King Alaska	Coho — Medium Red		Pink		Chum	
	Halves	Halves	Talls	Halves	Talls	Talls	Halves	Talls	Halves	Talls	Halves
1910	$4.4	$4.4	$5.4	$4.	$5.4	$5.	$3.2	$3.2	...	$3.1	..
1911	5.2	5.2	6.4	4.5	7.2	5.8	4.	4.	$3.2	3.8	$3.
1912	5.	5.2	5.6	4.6	5.6	4.6	3.2	2.6	2.2	2.5	2.
1913	5.	4.2	4.6	3.8	4.	3.4	2.8	2.6	2.2	2.2	2.
1914	5	5.4	5.8	4.4	5.6	4.6	3.3	3.6	2.8	3.4	2.6
1915	5.	5.4	6.	4.6	5.	4.6	3.	3.	2.3	2.8	2.1
1916	5.	5.6	6.	4.8	5.4	5.2	3.6	3.6	3.	3.4	2.7
1917	7.	7.	9.4	6.6	9.	8.	5.4	6.6	4.6	6.4	...
1918	8.	8.	9.4	6.6	9.	9.6- 9.	6.4	6.6	4.6	7. - 6.4	4.4
1919	8	10.	13	9.	12.5	12.	8.	9.	5.6	8.6	5.
1920	10.	12.	13.	9.	12.	8.	6.	6.	4.4	4.6	3.6
1921	8.4	10.	9.4	8.	7.	6.	3.8	4.4	3.2	4.	2.6
1922	13.	10.	9.	7.	7.	5.	4.	4.6	3.2	4.2	2.8
1923	10.	10.	9.	6.6	8.	5.6	4.	5.	3.6	4.8	3.4
1924	8.8	9.	9. -10.	6. - 7.	8.6- 8.4	7. - 6.	5.4- 4.2	5.2- 5.	3.6	4.8	3.4
1925	8.4	9.4-10.	14.	9.	13. -12.	11. -10.	7.4- 7.	5.8- 5.	4. - 4.4	4.6- 4.4	3.6- 3.
1926	9.4	10.	10.	8.	9.	9.	6	5.4	4.2	5.	3.6- 3.
1927	9.4	11.	12.4	9. - 8.6	11.4-10.6	10. - 9.	6.6- 6.	6. - 5.4	4.6- 4.4	5.4- 5.2	3.8
1928	9.8	10.4	9.4	7.4	8.6- 8.	7.4- 7.	5.4	6.6	4.4	6.4	4.
1929	10.4-10.	10.	10.6	8.	9.	8. - 7.4	5.6- 5.4	6.	4.4	5.4	4.
1930	10.	8.	12.4	8.	10.6	9.	5.6	4.	3.	3.6	2.8
1931	8.	8.	9.4	6.6	7.	7. - 6.4	4.8- 4.6	3.4	2.8	3.2	2.6
1932	6.	6. - 5.	5.8- 5.	4.	4.4	4.	3.2- 3.	3.4- 3.	2.4	3. - 2.8	. .
1933	7.6- 7.	7. - 6.6	7. - 6.6	4.8	6.	5.4	. . .	4.8	3.	4.6	2.8
1934	7.2	5.4	6.8- 6.4	4.8- 5.	5.4	5.	4. - 3.8	4.2- 4.	3.2	4. - 3.8	3.
1935	7.2- 7	7.	9.4- 9.	6.6- 6.4	8. - 7.	6.6	4.4	4.2- 4.	3.2	4. - 3.8	
1936	8.	7.	8. - 7.6	6.	7.	6.6- 6.4	4.4	4.	3.4- 3.	3.7- 3.6	3. - 2
1937	8.4	8.4	10.	6.8	9.	8.	5.	5.	3.4	4.8	3.2
1938	9.2- 8.4	7.	7.8- 7.4	5.6	7.6- 6.8	6.4	5.	4.	3.	3.8- 3.6	2.8
1939	9.2- 8.6	8.	9. - 8.6	6.7- 6.4	8.4	7. - 6.4	5. - 4.8	5.2- 5.	3.6- 3.4	4.6	3.2
1940	9.	8.4	9.6	6.6	9.2	7.4	4.8	5.4	3.8	4.8	3.4
1941	10.4	10.	13.6-13.4	8.2	12.	...	7.	7.	4.8- 4.4	6.8	4.6- 4
1942	13.	11.4	15.	10.	...	11.8-11.6	8.	8.	5.6	7.6	5. - 5
1943	13.	11.4	15.	10.	14.	11.8-11.6	8.	8.	5.6	7.6	5. - 5
1944	13.	11.4	15.	10.	14.	11.8-11.6	8.	8.	5.6	7.6	5. -
1945	13.	11.4	15.	10.	14.	11.8-11.6	8	8.	5.6	7.6	5. -
1946	18.5	19.	22. -20.	16.5-13.4	20.	17. -16.	11.6	12.	8.4	11.6- 9.4	8.
1947	20. -19.	22. -19.	24.5-22.6	17.5-16.	22. -21.4	22.	15.4-15.	19. -17.2	13.5-11.5	18.5-16.5	12.5-1
1948	23.5-22.	22.	27. -26.	19. -18.	26. -24.	25.	17.5-15.	23. -22.	15. -13.	20. -22.	13.5-1
1949	20. -18.	...	26.5-25.	16. -15.	24. -22.	22. -21.	12.5	16.	10.	15.	9.5-
1950	19. -21.	19. -20.	28. -29.	18.	23.	19. -22.	15.5	22. -24.	15.	20. -21.1	1
1951	21. -23.	19. -21.	29. -31.	18.	26.	25.	15.	21.	12.5	18.	11.
1952	22 -23.	20. -19.	27. -30.	17.5-18.	25.	21.22.	12. -13.	18 -20.	12.	16.	9.
1953	20. -21.	18.5-17.5	27.	17.	24.	20.	12.	18.	10.2-10.5	14.	8. -8
1954	20 -21.	18.5-16.5	28. -29.	16. -18.	25.	23.	13.5	20.	12.5-13.	15.	9.
1955	22. -23	20. -21.	32. -33.	18.5-19.7	28.	26.	15.	22. -23.	13.5-14.5	18.	10. -1
1956	23. -24.	23. -24.	33. -34.	21. -23.	29. -30.	28.29	16.	23. -24.	13. -14.5	21.	11.5-1
1957	24 -26.	23. -24.	33. -34.	21. -22.	28. -29.	27. -28.	15. -16.	23.	13.	19. -21.	11.5-1

NOTE: The title of this tabulation has been changed from "OPENING PRICES" to "INITIAL PRICES", and the prices of pre-war years - originally quoted per dozen each are converted to the per case basis which is now in general use.

The prices are quoted in dollars and decimals thereof, rather than in dollars and cents: and are based largely on formal "opening prices" announced as such by leading sellers, they are not limited exclusively to such quotations. The formal "opening prices" of different concerns are often incomplete, and var so widely that a full presentation of them might be confusing. The purpose this tabulation is to present comprehensively for each year the earliest pric at which substantial quantities of the pack were sold.

The prices here quoted for the war years are the "ceilings" established by government. Those for 1946 are the prices announced by the majority of la packers after "de-control".

felt over the action taken against two British Columbia exporters in connection with canned Pink salmon being shipped to the U. S., and anxiety was expressed as to whether this might foreshadow a tougher U. S. policy toward purchases of fish products from Canada.

- The United Kingdom indicated its readiness to continue buying canned salmon in British Columbia by placing orders in North America representing expenditure of about $3,500,000, a slight increase over 1956, although the amount was offset by the difference in exchange. B. C. probably accounted for about 80% of this business, as in other recent years.

British-Japanese Trade In Tuna and Salmon

- The British Board of Trade announced on October 25, 1957, that the import quota for Japanese canned salmon for the first six months of 1957/58 quota period is £2,610,000 (US $7,308,000) c.i.f. This exceeds half of the 1956/57 quota by £165,000 (US $462,000). The import quota of canned Japanese tuna for the first half of the 1957/58 quota period was reduced by £165,000 (US $462,000).

In 1956/57 the quota for Japanese-canned salmon was allocated in two parts, an interim allocation of £1,500,000 (US $4,200,000) c.i.f. was announced in September 1956, and the balance of £3,400,000 (US $9,520,000) was allocated in March 1957 following the completion of the Trade Agreement.

The distribution of the canned salmon by British importers remains unchanged, with 85 percent going to importers who were first-hand distributors for the Government during the period of control, and the remaining 15% through brokers or distributors of canned fish other than salmon.

The United Kingdom continues to do business with Canada on a licensing basis and while this is an improvement over the bulk buying setup that prevailed during the war and immediately afterwards, subject to strict dollar restriction, the trade on both sides of the Atlantic would prefer to see a return to unrestricted importation. With Britain's economic problems becoming more critical, there seemed small prospect of that in the near future, however. But it did seem inconsistent to keep canned salmon under closely controlled license while other commodities requiring much greater dollar expenditure were decontrolled. It is now 18 years since B. C. canned salmon entered the United Kingdom market on an unrestricted basis.

Value of Principal Canned Fish Products

Year	PACIFIC SALMON			SARDINES		Pacific Tuna	Mackerel	Oysters	Shrimp	Clams	Crabs	Miscellaneous Fish Products	GRAND TOTAL
	Pacific Coast States	Alaska	Total	New England States	California								
1921-25*	$11,060,592	$29,457,922	$40,518,514	$5,781,523	$4,428,409	$5,751,385	.....	$2,704,433	$3,928,434	$1,721,051	$71,087	$1,552,481	$66,457,317
1926-30*	12,772,490	38,329,082	51,101,572	6,281,996	9,494,787	8,990,774	$979,927	2,344,887	5,022,925	2,517,544	36,729	2,703,368	89,474,509
1930-35*	7,301,890	28,513,777	35,815,667	2,974,505	4,519,462	8,646,033	2,117,791	1,392,686	3,836,331	2,242,896	109,235	2,648,756	64,303,362
1936	5,309,438	44,751,633	50,061,071	5,740,454*	7,302,273	14,715,391	3,542,895	2,180,869	4,672,198	2,976,297	130,753	3,242,033	94,564,234
1937	8,386,165	44,547,769	52,933,934	4,998,373	8,592,117	18,995,779	2,673,608	2,932,681	7,130,747	3,013,446	269,699	3,634,551	105,174,935
1938	5,728,892	36,636,897	42,365,789	2,367,045	7,102,358	15,183,636	2,896,220	1,886,476	4,872,393	3,189,628	260,134	3,322,210	83,445,889
1939	7,339,727	34,441,122	41,780,849	7,075,096	9,553,663	20,079,567	2,588,695	2,378,945	5,397,662	3,798,319	259,756	3,714,998	96,627,550
1940	6,575,176	31,474,492	38,049,668	3,736,394	8,975,257	23,727,560	4,101,369	2,526,859	4,318,325	3,778,363	308,890	4,659,256	94,181,941
1941	11,199,317	56,217,601	67,416,918	12,590,958	18,091,873	19,397,887	3,503,718	2,997,114	4,882,544	3,711,029	547,617	5,544,466	138,684,124
1942	13,673,968	48,300,209	61,974,177	12,162,451	15,509,964	30,742,493	3,693,082	3,598,703	7,347,330	3,791,058	1,755,065	4,893,014	144,996,947
1943	5,110,847	57,824,267	62,935,114	11,104,570	14,352,359	31,430,189	5,271,203	2,821,556	5,360,647	2,802,420	1,194,483	4,334,350	141,188,[illegible]
1944	5,187,136	51,196,140	56,383,276	14,819,803	15,225,919	40,836,117	7,033,997	2,283,429	4,854,799	3,820,612	1,361,458	6,983,036	152,914,[illegible]
1945	7,942,102	44,644,303	52,586,405	12,077,201	15,346,472	47,407,451	4,046,691	2,029,953	1,918,633	7,391,098	883,767	9,[illegible],714	152,800,[illegible]
1946	17,003,459	53,157,194	70,160,653	20,275,590	19,895,649	59,135,823	7,575,291	5,249,272	8,428,735	11,145,047	4,720,119	21,770,334	227,[illegible]
1947	31,969,134	88,669,542	120,638,676	28,310,674	16,538,375	90,609,175	15,018,633	4,259,485	8,192,004	8,642,235	2,705,391	16,398,742	310,678,[illegible]
1948	24,008,466	96,528,730	120,537,196	29,359,114	21,892,893	112,612,296	9,850,834	4,777,531	7,791,313	8,329,639	4,846,494	18,621,357	336,181,479
1949	22,167,812	81,263,168	103,430,980	21,051,675	21,334,825	97,710,325	6,848,930	6,525,207	11,203,325	8,779,018	3,490,885	15,128,735	295,503,905
1950	27,187,060	82,354,118	109,541,178	21,209,033	26,345,609	112,830,094	7,491,816	7,096,235	12,773,346	10,839,889	3,121,269	20,086,878	331,335,347
1951	29,388,514	79,237,355	108,625,869	14,635,352	19,851,806	99,046,206	6,259,222	5,931,276	12,187,049	11,773,909	3,586,558	19,313,048	301,210,295
1952	21,906,773	76,357,016	98,263,789	21,502,970	5,655,463	113,034,510	11,362,697	7,047,441	12,998,814	12,209,558	2,087,019	21,666,937	305,829,198
1953	24,067,839	58,172,629	82,240,468	16,954,119	8,314,304	126,257,608	5,038,512	6,559,309	18,946,622	12,629,803	2,898,016	27,034,913	306,873,674
1954	28,915,972	63,339,170	92,255,142	18,152,815	12,590,594	142,148,816	2,508,715	5,829,378	13,691,253	12,301,033	3,699,293	27,840,827	331,017,866
1955	24,507,762	56,848,555	81,356,317	9,333,350	12,444,322	125,259,064	3,333,979	7,003,967	13,562,310	12,057,326	2,190,664	37,022,692	303,563,991
1956	16,523,868	76,948,880	93,472,748	16,749,794	9,095,082	140,338,342	6,434,860	6,222,329	15,800,229	13,619,064	2,738,587	43,095,428	347,566,463

* Average

Note - California sardine figures for recent years include anchovies, valued at $3,360,584 in 1956.

U. S. Tuna and Sardine Markets

● Market for American canned tuna inclined toward weakness through all of 1957 in spite of the large volume sold and of the upward trend in consumer price index during most of the year.

Domestic operators in general attributed this paradox to the effect of the growing sales of Japanese tuna canned in brine, with its favorable tariff treatment under which it pays duty at only a fraction of the rate charged standard canned tuna.

In all the varied opinions held by American tuna operators on the subject of tuna imports there is consensus on one point, and one only: *imported tuna canned in brine should pay the same duty as tuna canned in oil.*

With that view there appears to be no disagreement among American producers, whether they be fishermen or packers.

Testifying on these matters before the U. S. Tariff Commission at the end of 1957, Charles R. Carry, executive director of the California Fish Canners Association, said:

"The following observations seem to us undeniable:

"1. Tuna in brine sold in consumer sizes is directly competitive to all types of tuna in oil produced by United States packers.

"2. The consumer uses tuna in brine in the same manner and for the same purposes as she does tuna in oil.

"3. The comparative low price of tuna in brine is the basic reason for consumer acceptance.

"4. Tuna in brine has captured practically the entire institutional market".

Another spokesman before the Tariff Commission was T. F. Sandoz, president, Columbia River Packers Association, Inc., who made his point on tuna in brine in these words:

"The current import duty on canned tuna in brine is not realistic and was not fixed by any consideration of the facts involved, but by inadvertance in the preparation of a tariff agreement with a country which does not export tuna. . . . Tuna in brine is an item directly competitive with canned tuna in oil produced by domestic canners. . . . This competition is injurious to domestic fishermen, processors and labor. . . . The importation of canned tuna in brine should be regulated by a reasonable tariff equal to that now

California Pack of Canned Tuna and Related Fishes

YEAR	Cases									YEAR
	SAN PEDRO DISTRICT				SAN DIEGO DISTRICT				GRAND TOTAL	
	Light Tuna	White Tuna	Other Tuna*	TOTAL	Light Tuna	White Tuna	Other Tuna*	TOTAL		
1912	.	..	.	...	...	...	..	..	75,900**	1912
1913	.			. .	...	. .	.	...	77,500**	1913
1914	.		. .	...	...	...	..	.	217,000**	1914
1915		.	. .	...	.	...	...	...	237,365**	1915
1916	315,880	82,593	6,457	404,930	71,062	13,593	245	84,900	489,830	1916
1917	382,273	118,769	11,928	512,970	149,563	17,261	12,746	170,570	683,540	1917
1918	228,241	82,801	87,110	398,152	50,129	...	73,072	123,201	521,353	1918
1919	487,812	144,383	65,008	697,203	62,318	47,869	24,572	134,759	831,962	191
1920	668,012	§	1,534	669,546	167,633	§	1,623	169,256	838,802	192
1921	72,410	255,194	...	327,604	27,869	82,157	48	110,074	437,678	192
1922	334,733	166,496	3,651	504,880	129,349	27,269	23	156,641	661,521	192
1923	312,187	209,591	17,803	539,581	224,315	88,014	4,869	317,198	856,779	192
1924	134,497	278,855	113,401	526,753	27,207	106,958	11,382	145,547	672,300	192
1925	323,422	358,940	116,149	798,511	187,909	95,007	11,936	294,852	1,093,363	192
1926	380,074	43,660	150,185	573,919	188,649	14,578	56,280	259,507	833,426	192
1927	381,541	105,598	231,751	718,890	436,700	20,916	30,368	487,984	1,206,874	192
1928	473,868	99,093	128,374	701,335	473,704	658	21,581	495,943	1,197,278	192
1929	394,819	130,212	146,104	671,135	700,020	2,426	55,284	757,730	1,428,865	192
1930	658,728	143,748	130,159	932,635	950,461	1,783	35,510	987,754	1,920,389	193
1931	394,668	144,796	85,653	625,117	543,536	177	10,303	554,016	1,179,133	193
1932	385,399	52,215	88,112	525,726	606,608	...	15,655	622,263	1,161,151	19
1933	341,290	49,391	71,388	462,069	877,124	...	52,980	930,104	1,392,173	19
1934	714,546	82,182	116,526	913,254	982,547	...	31,509	1,014,056	1,927,310	19
1935	808,578	107,501	230,772	1,139,851	1,222,894	4,648	109,323	1,336,875	2,476,727	19
1936	840,151	53,849	153,107	1,047,107	1,392,531	35	147,509	1,540,075	2,587,182	19
1937	881,208	83,123	260,016	1,224,346	1,680,720	8,036	105,211	1,793,967	3,018,314	19
1938	697,804	265,034	233,766	1,196,604	1,282,571	24,355	95,202	1,402,128	2,598,732	19
1939	982,225	281,666	262,367	1,526,258	1,633,113	46,372	70,917	1,750,402	3,305,297	19
1940	1,110,181	122,484	315,778	1,548,443	2,045,071	19,304	251,623	2,315,998	3,868,394	19
1941	554,782	73,024	235,910	863,716	1,372,594	10,145	274,643	1,657,382	2,530,169	19
1942	594,056	128,670	97,901	820,627	1,164,524	104,578	146,234	1,415,336	2,242,220	19
1943	554,928	187,052	234,382	976,362	699,099	227,347	394,265	1,320,711	2,308,415	19
1944	805,081	125,632	270,821	1,201,534	760,263	307,806	537,889	1,605,958	2,809,177	19
1945	825,377	118,286	503,118	1,476,781	1,518,646	329,251	128,686	1,976,583	3,456,442	1
1946	1,170,791	141,629	646,615	1,959,035	2,023,870	233,622	332,529	2,590,021	4,555,397	1
1947	1,317,016	104,726	733,587	2,155,329	2,576,804	145,300	418,797	3,140,911	5,357,498	1
1948	1,264,615	290,811	771,182	2,326,608	3,096,315	462,255	406,248	3,964,818	6,346,952	1
1949	810,362	289,063	1,458,374	2,557,799	2,967,150	535,013	449,413	3,951,576	6,590,396	1
1950	1,024,410	586,683	2,673,668	4,284,761	1,412,220	482,894	1,961,297	3,856,411	8,141,172	1
1951	3,143,863	580,377	77,229	3,801,469	3,015,164	409,819	10,260	3,435,243	7,530,264	1
1952	4,204,207	1,002,020	196,453	5,402,680	1,742,124	626,944	34,234	2,403,302	8,102,842¶	1
1953	4,042,121	1,366,103	100,252	5,508,476	2,139,393	655,989	69,866	2,865,248	8,624,109¶	1
1954	4,712,414	1,206,664	27,126	5,946,204	2,880,712	393,486	48,409	3,302,847	9,638,773¶	1
1955	4,872,188	903,314	2,501	5,778,503	2,017,242	244,599	2,218	2,264,059	8,549,678¶	1
1956	4,980,228	1,038,030	3,978	6,022,236	2,717,577	343,886	2,516	3,063,979	9,662,579¶	1
1957	4,779,665	1,431,750	4,263	6,215,678	2,584,996	727,752	2,131	3,314,879	9,530,557	1

¶ Quantities of tuna canned in Monterey, San Francisco and elsewhere in Northern California have been included in the grand total. Figures are for standard cases of 48 halves or equivalent. Figures for final year are temporary totals from official sources. Data for previous years have been corrected according to official statistics of the California Department of Fish and Game.

* "Other Tuna" through 1950 includes Bonito, Yellowtail, Flakes and Ton For 1951 and thereafter this column includes only Yellowtail and Bonit Flakes and Tonno being included in other columns.

§ Included under other heads.

** No segregation available prior to 1916

OREGON - WASH. IMPORTS OF FROZEN TUNA BY MONTHS

	(Tons)												
SPECIES	Nov. '56	Dec. '56	Jan '57	Feb.	March	April	May	June	July	August	Sept.	Oct	Total
TUNA: Albacore	102	1,050	...	1,200	203	311	350	600	1,923	3,915	291	715	10 660
Other	...	150	3	...	253	128	75	...	...	430	...	675	1,714
Unclassified	...	...	...	...	...	...	...	...	12	27	68	...	107
TOTAL	102	1,200	3	1,200	456	439	425	600	1,935	4,372	359	1,390	12,481
1955 - 56 All Tuna	2,189	657	1,469	403	316	2,042	992	1,049	2,048	4,772	502	220	16,659

imposed on imports of canned tuna in oil".

- The several bills pending in Congress early in 1958 for relief of the economic condition in the tuna industry were all believed to carry provisions which would equalize the tariff on all canned tuna, whether canned in oil or in brine.

While immediate action was not anticipated at presstime of this *Yearbook*, the general recognition of the inequity of preferential tariff treatment for tuna in brine was expected eventually to bring a correction in the form of tariff equalization on canned tuna in any style.

- Expressive of the American tuna fishermen's concern over the deterioration of the market for domestic tuna in the United States, Harold F. Cary, manager of the American Tunaboat Association, told the Tariff Commission that U.S. consumption of tuna had increased 34% from 1952 through 1956, and that the product of American fishermen had decreased 10% in the same period.

1957 Sardine Market

- As the season opened the only price quoted was $8.75 per case in 15-oz. oval cans in tomato sauce. This compares with the opening of the 1956-57 season when ovals were quoted at $7.50 and No. 1 talls at $5.50. Later on, in 1957, No. 1 talls in brine were quoted at $6.50.

No 5-oz. talls were packed in northern California during the year.

With southern California canneries tied up with a strike until early November, the price of canned sardines rose from $8.75 for ovals to $10, and No. 1 talls to $7.00.

From the pack figures quoted above it will be seen that the rise in price was caused by the limited supplies available and also because there was no carry-over from the 1956-57 season.

These 1957 pack prices were too high for the export market and practically the entire California pack was moving into the domestic market. South African and Japanese canned sardines have maintained their position in the export market.

Even with the movement of California canned sardines confined to the domestic market, there will not be enough goods to carry through to August, 1958, observers declared.

Though 1957 pack sardine prices were substantially higher than at the same time in 1956 ($8.50-$9.00 for ovals; $6.50-$7.00 talls), interest in California sardines for domestic trading was better in 1957 than for many years past.

ALLEN SALES CO.
Sales Agents for
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DUNGENESS and KING
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PAUL PAVER & ASSOCIATES
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CHICAGO 10, ILL.
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Fish Producers of Peru

(Product Code: C, Canned Fish; F, Fish Freezing; R, Fish Reduction; W, Whale Reduction)

Products	Producer	Location	Address	Manager
C	Conservas Peruanas S.A.	Callao	Calle Loreto 874, Callao	Juan Idesis
C-R	Cia. Pesquera LaPeruana S.A.	Callao	Carabaya 831 Of. 407, Lima	Pedro Martinez
C-R	Empresa Pesquera San Jose S.A.	Callao	Calle Constitucion 609, Callao	Jose Mandriotti
C-R	Empresa Pesquera Chalaca S.A.	Callao	Av. Tacna 592, Of. 24, Lima	Manuel Elguera
C-R	Fac. de Conservas Marfe S.A.	Callao	Apurimac 162, Callao	Jorge Malatesta
C	Industrial Conservera S. en C.	Callao	Av. Pacifico 879, Callao	Pascual Saco Salcedo
C-R	Industrias Marinas Alimenticias S.A.	Callao	Calle Primera 249, Callao	Hugo Carillo
C-R	Panamerican Fish Packing S.A.	Callao	Calle Ancash 870, Callao	Marcos Ghio G.
C	Pesquera Virgilio	Callao	Contralmarante Mora 300, Callao	Carlos Virgilio
C	Sindicato Pesquero del Peru S.A.	Callao	Contralmirante Mora 250, Callao	Santiago Schiaffino
R	Fabrica de Conservas America S.R.Ltda	Callao	Ramon Espinoza 190, Rimac	Isaac Maimon
R	Factoria Harina de Pescado	Callao	Plateros de San Agustin 187, Lima	Pedro Bidegaray
R	Industria Conservera Alimenticia S.A.	Callao	Jr. Ayacucho 631, Callao	A. Goytizelo
R	Cia. Italo Peruana de Pesca	Callao	Edif. Oztolaza 4° Piso, Lima	Mario Vela
C	Cia. Pesquera La Florida S.A.	Chimbote	Edif. International Of. 87, Lima	Luis Banchero
C-R	Conservas Miramar S.A.	Chimbote	Av. Tacna 592, Of. 24, Lima	Manuel Elguera
C	Envasadora Chimbote S.A.	Chimbote	La Mar 357, Callao	Luis Vascones C.
C	Envasadora Sta. Rosa S.A.	Chimbote	Av. Tacna 592, Of. 24, Lima	Julio Reyes
C-R	Alfonso Figuerola Arara e Hijos S.A.	Chimbote	Chimbote	Alfonso Figuerola
C	Cia Pesquera Bebsa S.A.	Chimbote	Chimbote	Honorio Farro
C	Felipe Ganoza S.A.	Chimbote	Chimbote	Felipe Ganoza
C-R-F	Cia. Pesquera Bebsa S.A.	Chimbote	Edif. Del Castillo 611, Lima	Manuel Almenara
R	Bibaco S.A.	Chimbote	Jr. Union 284, Lima	Ricardo Molinari
R	Inca Fishing Co.	Chimbote	Av. Iquique 1397, Lima	Enrique de Solar
R	Conservas Harinas Peruanas S.A.	Chimbote	Prol. Ayda. Argentina 346, Callao	Carlos Olivares
R	Cerro Azul S.A.	Chimbote	G. Naranjo 172, Lima	Demetrio Castagnon
R	Empresa Pesquera Chimu S.A.	Chimbote	Edif. Tacna 592, Of. 24, Lima	Manuel Elguera
R	Andes Fishing Co. S.A.	Chimbote	Antonio Maroquesada 301, Of. 611	Dalla Porte
R	Pesquera Humboldt S.A.	Chimbote	Carabaya 831, Of. 406, Lima	Luis Banchero
F	Star Kist Peruana S.A.	Chimbote	Edif. Rimac 2, Pas. Acuna 127, Lima	George GJigo
C	Battilana Hnos.	Lima	Av. Iquitos 1054, Lima	Adolfo Battilana
C	Cia. de Conservas de Pescado S.A.	Lima	Av. Colonial 459, Lima	Jose Giugliano
C	Env. Nacional de Prod. Alimenticios S.A.	Lima	Prol. Mariateguia 105, Barranco	Eduardo Segersbol
C	Envasadora Rimac S.A.	Lima	Av. El Trabajo 265, Lima	Ricardo Salerno
C	Fca. de Conservas Alimenticias S.A.	Lima	Alameda de los Bobos 212, Lima	Santiago Casaretto
C	Fab. de Conservas America S.R.Ltda.	Lima	Ramon Espinoza 190, Lima	Isaac Maimon
C	Battilana Atilio Carquin	Huacho	Prolongaciou Grau s/n apart. 147, Huacho	Mario Battilana
C	Conservera Garquin S.A.	Huacho	Salaverry 148, Casilla 147, Huacho	Guido Giardi
C-R	Conservas y Salazones S.A.	Huacho	Calle San Jose 312 altos, Lima	Carlos Otero Lora
C	Soc. Industrial Conservera Alimenticia	Huacho	Jr. Arequipa 677, Lima	Jose Gutierrez
R	Aminco Mar S.A.	Huacho	Jr. Puno 239, Lima	A. Magnificio
C	Cia. de Pesca San Pedro S.A.	Ilo	Calle La Merced 308, Apdo 279, Arequipa	Jorge Bedoya Forga
C-R-F	Empresa Pesquera Ilo S.A.	Ilo	Av. Tacna 592, Of. 24, Lima	Manuel Elguera
C-R-W	Cia. Maritima Pesquera S.A.	Chancay	Azangaro 235, Lima	Eberhard Mayser
R	Cia. Maritima Pesquera S.A.	Casma	Azangaro 235, Lima	W. Wegener
C	Industria Conservera Alimenticia S.A.	Chancay	Jr. Ayacucho 631, Callao	Armando Goytizola
R	Cia. Explotadora Productos del Mar	Casma	Edif. Tacna 592, Lima	Jorge Ganoza
F	Cia. de Negocios de Ultramar S.A.	Mancora	Carabaya 831, Of. 406, Lima	F. D. Wyatt
F	Cia. Pesquera Mancora S.A.	Mancora	Edif. Ostolaza 5° Piso, Lima	Rafael Grana
F	Interamerican de Nav. y Negocios S.A.	Mancora	Av. Paz. Soldan 131, Calloa	Cesar Vallarino
F	Mercante Peruana S.A.	Mancora	Jr. Ica 121, Edif. Select 405	Eleodora Galarezo
C	Sociedad Pesquera Cantabria S.A.	Huarmey	Pza. San Martin 181, Lima	Epifanio Aofra
R	Cia. Industrial Pesquera Huarmey	Huarmey	Edif. Italia, 306, Lima	J. Arguelles
R	Industrial Pesquera de Rosario S.A.	Huarmey	Azengaro 430, Lima, Of. 301	H. Lavalle
W	Cia. Ballenera del Norte	Paita		Jas. S. Russell
C-F	Frigerificos Paita S.A.	Paita	Edif. Atlas 10° Piso, Lima	John Day
R	Pesquera Paracas S.A.	Paracas	Edif. Italia, Lampa 921, Lima	Mario Jacobs P.
F	Marinos Refrigerados S.A.	Caleta Cruz	Casillo 143, Tumbes	Chas. H. Kollmeyer
R-F	Frigerificos Paita, S.A.	Red Rock	Edif. Atlas, 10° Piso, Lima	John Day
W	Consorcio Ballenera	Pisco		
C	Cia. Pesquera de Coishco S.A.	Coishco	Edif. Rimac 2, Pas Acuna 127, Lima	Manuel Almenara
C-R	Corp. Financ. y Commercial Amial Peruana S.A.	Samanco	Calle Correo 169, Lima	S. Kroupnitzky
C-R	Empresa Pesquera Peru S.A.	Supe	Carabaya 831, Of. 313, Lima	Carl Hedreen
C-R	Empresa Pesquera Mollendo S.A.	Mollendo	Av. Nicolas de Pierola 611, Lima	Claudio Fernandez Cor
C-R	Empresa Pesquera Naple S.A.	Pucusana	Av. Nicolas de Pierola 611, Lima	Juan Jose Suelves

World-Girdling Fleets Find Rich 1957 Fishing In Bering and Atlantic

By

KENJI SAKAI

● Three developments of primary significance marked Japan's fishing experience of 1957.

1. The large catch of Red salmon in the Aleutian area of the North Pacific.

2. The decline of the rate-of-catch of Yellowfin tuna in the Indian Ocean, which produced a marked shift in the long-range fishery and a trend away from the 1,000-ton clippers to smaller and faster craft.

3. The build-up on a major tuna fishery in the Atlantic Ocean, where 16 large clippers were fishing at year-end, having delivered about 10,000 tons of tuna to Italy during the year.

In Japan's world-topping fishing industry, these were the three developments of widest world significance.

● Most severe adversity of the Japanese fisheries of 1957 was perhaps the remarkable decline in the rate of catch of tuna in the Indian Ocean—particularly the rate for Yellowfin, which has been the mainstay for operation by Japanese tuna clippers.

Starting from comparatively nearby waters of Japan proper, pelagic tuna operation by longline expanded easterly and southward year by year after removal of the so-called "McArthur Line" in 1952. With building of larger vessels, the further the fishermen advanced, the higher rate-of-catch they encountered, to their gratification. They enjoyed exceptionally high catch-per-unit fished in the newly-opened fishing grounds in the southwestern waters of the Pacific at first, but after a time they found the rate gradually declining, so the more venturesome ships with better equipment penetrated beyond Java and Flores into the west corner of the Indian Ocean. Some one broke through Malacca Strait direct into the central and west part of the Indian Ocean, finally reaching the vicinity of Madagascar of Africa about the end of 1954.

But the golden age for the Indian

1957 - Japanese Canned Salmon Pack - 1957

(Unit: full cases of 48 lbs. net. Actually, however, all 1/4-lb. cans were packed in cases of 8 doz. cans, all 4-lb. cans in cases of 1 doz. cans, and some 1/2-lb. cans in boxes of 4 doz. cans.)

Can Type	Red	Pink	Chum	Silver	King	Tidbit	TOTAL
1/2-lb Flat (8 doz.)	1,006,245	531,791	150,892	11,177	999	35,130	1,736,234
1/4-lb Flat (16 doz.)	37,202	32,128	47	13	...	2,977	72,367
1-lb Tall (4 doz.)	17,860	533,248	47,838	735	..	....	[illegible]9,681
1-lb Flat (4 doz.)	...	4,941	...	....	....	....	4,941
4-lb (2 doz.)	...	10,500	..	....	...	....	10,500
TOTAL	1,061,307	1,112,608	198,777	11,925	999	38,107	2,423,723

NOTE: Figures include pack of all factoryships where the packing was completed in July, and that of all land canneries as of end of September plus estimate up to final. As had always been case for previous years, some land canneries processed fish caught on high seas, frozen in factoryships and transported homeward.

Japanese Canned Salmon Pack

(Unit: Full case of 48 lbs. net)

Year	Red	Pink	Chum	Silver	King	Tidbit	TOTAL
1951	...	...	...	...	...	...	195,776
1952	...	...	...	...	...	..	97,700
1953	...	...	...	...	...	..	208,689
1954	186,146	174,069	80,468	65,658	2,474	4,818	513,633
1955	623,542	675,860	282,890	174,208	3,155	24,097	1,783,752
1956	520,111	781,282	494,943	175,001	7,405	32,907	2,011,649
1957	1,061,307	1,112,608	198,777	11,925	999	38,107	2,423,723

NOTE:- Segregation by species not available prior to 1954 but the packs were practically all pink. Packing on board factoryship on high seas began in 1953 but in that year only one factoryship had canning equipment with an output of only 38,427 cases including 21,450 cases of Red, although there was a little more pack of this species, etc., in that year from fish frozen in factoryships and brought to land canneries. Since then this practice is continued year after year. In latest years, of the total production about 200,000 cases mainly in Pink, Chum and Tidbit are consumed domestically and all the rest is being exported

JAPAN

Japanese High Seas Salmon Catch

(By area, in numbers of vessels, numbers of fish and percentage of catch)

YEAR	Operation Area	Mother-ship	Catcher* Boats	RED	PINK	CHUM	SILVER	KING	TOTAL	AVERAGE Catch per Catcher Boat
1952	Aleutian	3	57	744,929	703,402	644,453	24,446	1,379	2,118,609	37,168
1953	Aleutian	3	105	1,579,850	3,065,336	2,707,134	339,603	8,253	7,700,176	73,350
1954	Aleutian	7	205	3,816,301	5,804,010	9,403,818	1,398,258	74,224	20,496,611	99,983
1955	Aleutian	12	347	12,163,948 (24.1%)	16,507,827 (32.7%)	18,573,457 (36.8%)	3,183,813 (6.3%)	74,084 (0.1%)	50,503,129 (100%)	145,542
	Okhotsk	2	60	329,883 (2.4%)	9,408,875 (69.5%)	3,404,134 (25.2%)	392,096 (2.9%)	2,398 (0.0%)	13,537,396 (100%)	225,623
	Total	14	407	12,493,831	25,916,702	21,977,591	3,575,909	76,482	64,040,515	157.347
1956	Aleutian	14	447	9,633,546 (22.6%)	12,006,578 (28.1%)	17,166,916 (40.2%)	3,757,456 (8.8%)	136,520 (0.3%)	42,701,016 (100%)	95,528
	Okhotsk	2	59	656,404 (7.0%)	5,366,361 (57.3%)	3,223,943 (34.4%)	117,332 (1.3%)	994 (0.0%)	9,365,034 (100%)	158.729
	Total	16	506	10,289,950	17,372,939	20,390,859	3,874,788	137,514	52,066,050	102,897
				All species, in metric tons						In metric tons Average per boat
				CATCH QUOTA			TOTAL CATCH			
1957	Aleutian	14	405	87,000			86,984			214.8
	Okhotsk	2	56	13,000			13,000			232.1
	Total	16	461	100,000			99,984			216.9

* Includes a small number of "investigation ships" each year up to 1956. These tables do not include high seas salmon catch by Japan home based vessels. For operation by these Japan home based vessels within the Soviet-Japanese Fisheries Treaty zone, a catch quota of 20,000 metric tons was set and achieved separately in 1957. The total quota for the zone was therefore 120,000 metric tons. As yet no breakdown by species is available for catch of 1957.

Ocean operation lasted only two years. Activity of super-clippers outshone all the rest during that period. By 1956 the decline in the angling rate was quite noticeable and the year 1957 saw the Japanese tuna industry watch with deep concern the decline in rate-of-catch shown in an accompanying table.

It should be noted here that as Misaki investigators and other scientists observe, the lower rate-of-catch for Yellowfin in particular should not be taken directly as an index to show depletion of the whole stock in the ratio of the new rate to the old, for fish exhibit a resiliency under exploitation, and it has been always the case that an exceptionally high rate-of-catch is experienced wherever a virgin ground was first exploited; and that this has come gradually down until a certain stability level is reached. In any case, the super-sized tunaboats which had been built on basis of the first high rate did suffer severely in 1957.

- Rate-of-catch, which is sometimes called the "hooked rate" by Japanese scientists, is the number of fish of a single species caught per 100 hooks of a longline in one operation or "set," regardless of length of line or time. If every hook of a longline in one operation caught a fish of a same species, rate-of-catch for that area of operation at that time would be 100. Weather permitting, usually an operation or "set" covers 15 to 20 hours.

The Kanagawa Prefectural Fisheries Experiment Station publishes a chart monthly in a periodical called *Tuna Fishing*, which is printed by a subordinate private agency called the Investigative Society of the Tuna Fishery with its office in the same building as the experiment station at Misaki, Kanagawa Prefecture, the No. 1 tuna landing port of Japan. The Society is composed of pelagic tuna fishing firms, private and incorporated, as well as the very crews of the fishing vessels.

Publication of the rate-of-catch chart provides the crews with data and index to be referred to in their next cruising plans.

The rate-of-catch data are published with detailed comment and forecast as to the currents and future movement in the ocean of the commercially valuable fishes whose size mode in the body length frequency is also provided month by month. This information is the result of careful analysis by investigators of a mass of data supplied by practically all of Japan's pelagic tuna vessels landing their catches at the three largest tuna landing ports, Tokyo, Misaki and Yaizu, where teams of surveyors measure the length of the fish every day landing is made. In Japan's official research system all studies of the fisheries of tuna and tuna-like fishes are finally the responsibility of the Nankai Regional Fisheries Research Laboratory located at Kochi, Shikoku, which is one of eight regional governmental research laboratories.

Late Data

It should be noted that the above table pertains only to tonnages caught by the high seas fleet within the Soviet-Japan quota area; and does not include fish caught by the Japan-based fleet, nor outside the Soviet quota area.

Just at presstime, and coinciding with the opening of the Soviet-Japanese commission meeting in January, 1958, the Japanese Fisheries Agency announced through the press more complete tonnage data.

These published reports said the total Japanese catch of salmon in the North Pacific in 1957 was 165,415 metric tons, of which 121,093 metric tons were taken by the high seas and shore-based fleets within the Soviet quota area and 45,321 tons elsewhere.

- In the single year of 1957 the Japanese established a longline operation in the Atlantic Ocean. The reduced rate-of-catch in the Indian Ocean, evident in 1956 and acute in 1957, accelerated this development. No sooner had the investigation ship *Sagami Maru* and the first commercial clipper *Kour Maru* arrived in Atlantic waters almos at the same time in the end of 1956 and begun operation early in the new year, than other applications for participation in the new venture were filed at the Fishery Agency one by one. B the summer of 1957 about a dozen longline "cruisers" had hurried to th Atlantic, the total number of these expeditions attaining as many as 16 b the end of the year.

Most of the fish caught were lande in Italy in barter for rice or some othe products; and a small part was sold in Brazil.

Landing at Italian ports in this first year amounted to just 10,000 tons.

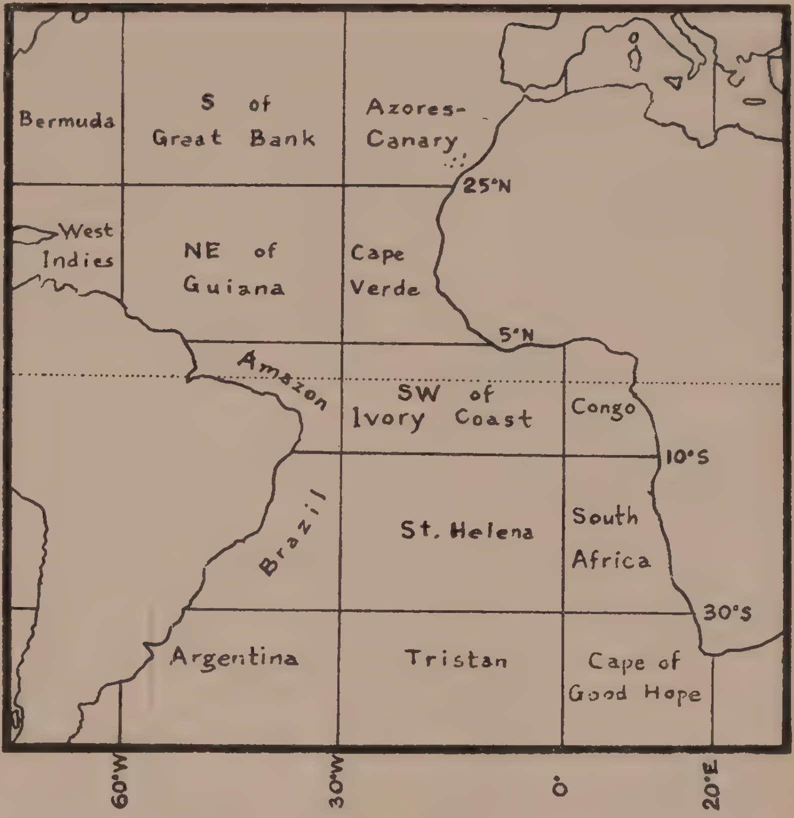
From *Sagami Maru* and other forerunners information on the distribution of tuna and associated fish was dispatched to the Kanagawa Prefectural Fisheries Experiment Station via radiogram or airmail from the first test operation, as had been done by Pacific and Indian Ocean operating tunaboats at time of their return to their home ports after each voyage. Thus the investigators at Misaki were able to prepare and publish the rates-of-catch of the new fishing ground as quickly as possible to assist the skippers.

Summary of reports from the Misaki research vessel *Sagami Maru* was first published in the spring of 1957. Then the Atlantic current systems, as related with the density of fish species, were roughly outlined in the summer, and on this data partition of the Atlantic Ocean into a number of "areas" for the sake of monthly description of fishing condition by rate-of-catch index was made. A chart of the Atlantic Ocean partitioned into "areas" as determined by the experiment station accompanies this article.

While it is anticipated that shortly the rate-of-catch for each Atlantic area will be published monthly, at the time of this writing at the end of 1957, the rate for only a couple of the so-called "areas" has been given. The data available is presented in an accompanying table, which includes the rate-of-catch for a Pacific area by way of comparison.

- As for tuna of the Pacific and Indian Oceans, Japanese scientists have detected a more or less distinct trend in seasonal fluctuation of abundance by "area." The rate-of-catch for the succeeding months and for other "areas" of the Atlantic are expected to make clear the seasonal migration of the species. In the table, it is noted that the rate for Yellowfin in the NE of Guiana area and the figure for Albacore in the SW of Ivory Coast area

Atlantic Tuna Fishing Areas



1957 Atlantic Tuna Rate-of-Catch

With comparative data for a Pacific Area

	Atlantic Ocean NE of Guiana "Area" February, 1957	Atlantic Ocean SW of Ivory Coast "Area" March, 1957	Pacific Ocean SW of Hawaii "Area" March, 1957
Yellowfin	7.6	1.7	0.5
Albacore	1.9	10.1	0.0
Bigeye	0.6	0.6	2.7
Blue Marlin	0.4	1.0	*0.3
White Marlin	1.5	0.7	*0.0
Sailfish	0.0	0.5	0.0
Swordfish	0.0	0.2	0.0

---

*Pacific Black Marlin and Striped Marlin rates are given under Blue and White Marlin, respectively.

Japanese Mid-Pacific Mothership Tuna Operations

YEAR	Factory-ship	Catcher Boat	CATCHES (Unit, ton)						
			Yellowfin	Albacore	Bigeye	Bluefin	Skipjack	Others	TOTAL
1950	3	44	4,140	49	581	1	12	2,416	7,199
1951	6	88	5,473	138	2,702	2	19	4,069	12,403
1952	2	38	4,468	79	598	7	30	2,067	7,249
1953	2	37	4,830	323	831	7	12	3,031	9,034
1954	6	122	4,317	3,650	1,332	687	16	5,387	15,389
1955	3	103	3,246	5,451	853	7	31	5,410	1[illegible],[illegible]63
1956	3	94	2,246	4,100	1,662	6	16	4,393	12,423
1957	3	105							15,000*

NOTE: - Source, Ministry of Agriculture and Forestry, Statistics and Survey Division. "Others" include Broad-bill swordfish, Black marlin, White marlin, Striped marlin, Sailfish, Sharks, etc. *Catch quota set by Fishery Agency.

Tuna Rate-of-Catch in the Indian Ocean

Sub-area		Rate as of April, 1955	Rate as of March, 1957
Western Indian Ocean	Yellowfin	11.1	5.4
	Albacore	1.4	1.8
	Bigeye	0.9	0.4
Central Indian Ocean	Yellowfin	7.8	2.6
	Albacore	1.0	1.5
	Bigeye	0.8	1.0
West of Australia	Yellowfin	2.1	0.6
	Albacore	4.6	2.2
	Bigeye	0.4	0.3

Note—Rate is given in average number of fish caught per set of 100 hooks on longline gear.

is as high as the rate for Yellowfin in the Western Indian Ocean area for the same fish in the Central Indian Ocean area respectively of two years previous. *Tuna Fishing* proclaims that any new findings at the laboratory are available free for ships of any other countries in the world interested in the fisheries.

Mid-Size Tuna Vessels Regain Preference in Japanese Fleet

• Return to favor of the "mid-size" tuna vessel was evident at the end of 1957, forecasting a trend for 1958 which is expected to have long-range influence on the character of future construction in the Japanese tuna fishing fleet, as well as in its areas and methods of operation.

A craft of more than 200 gross tons was considered large until about 1954. In those days by "mid-type" was meant craft of about 170 gross tons at largest. With the extension of cruising radius and the building of ever-larger vessels since then the notion has changed.

In recent years only the super-clippers larger than 500 gross tons were called large size; while tuna clippers of 250 to 300 gross tons that had once been stars of the industry are called "mid-type" so far as the world-wide pelagic operation is concerned.

Recently he who could afford to build a new pelagic tunaboat has aimed for as large tonnage as possible, and at last a number of 1,000-ton all-purpose tuna longliners appeared in 1956 and 1957. But it was perhaps only up to the end of 1955 that over-500-ton super-clippers really profited. Even in 1956 earnings of these giant clippers began to worsen, due to the decline in the angling rate of Yellowfin tuna of the Indian Ocean.

As the year 1957 advanced, the decline became so acute that what was called a "4-ton-a-day operation," which had never been dreamed of by any fishermen two years previous, occurred not infrequently. For instance, a 1,100-ton newcomer, the pride of the port of Shimizu, had to carry out 61 fishing operations in the Indian Ocean in order to fill her 700-ton fish hold in a voyage of four full months. Naturally a number of newly built large-size ships headed direct to the Atlantic operation, where the angling rate was high, instead of to the Indian Ocean.

Operators of Japanese pelagic tuna fisheries have just changed their ideas, away from the 1,000-ton super-clippers. Now in favor is the clipper of middle type with as high a speed as possible, and yet increased fish hold capacity, a combination sought by fine lines and hull construction—a 250-ton type comparable in efficiency with the 350 tonner of five years ago. With other advanced modern equipment an manned by selected crew, the owne of such a vessel believes seven voyage a year may be possible.

In October, 1957, the first one buil to such an ideal appeared in Misaki i *No. 5 Koyu Maru.* Another of thi type was to be commissioned early i 1958, also at Misaki; and at least 2 of this type are currently planned t appear in the Indian Ocean and remote Pacific fisheries in 1958, outshining the "obsolete" 1,000 tonners

• When a joint selling company fo canned salmon was formed and opene its business in April, 1956, as representative of the cartel of packers in order to put the export trade in a sound stabilized condition, it made a partition of the whole world market int three definite categories, areas "A," "B," and "C."

Area "A" covered the United State and Canada. As these countries themselves had long been and were mai production and export sources o canned salmon, a prudent attitude wa required in formulating a policy o introducing into these countries the product of Japan, lest ill will develo against the new competitor.

Area "B" meant the United Kingdom, which had been the best customer of Japanese canned salmon i prewar times; but thereafter impor

Japan Fisheries Directory

• Japanese fishery agencies and associations, their addresses and principal officers as of January 1, 1958 were:

General

Fishery Agency, Ministry of Agriculture and Forestry, Kasumigaseki, Chiyoda-ku, Tokyo—Minister Munenori Akagi; Director Hideo Okuhara.

Japan Fishery Society, 626 Marunouchi Building, Marunouchi, Chiyoda-ku, Tokyo—President Tatsunosuke Takasaki.

Vessel Owners

Federation of Japan Tuna and Bonito Fisheries Cooperative Associations, Tuna Building, 2-7 Hirakawa-cho, Chiyoda-ku, Tokyo — President Bunpei Hamaji.

Operators

Japan Canners Association, 567 Marunouchi Building, Marunouchi, Chiyoda-ku, Tokyo—President Tomohachi Ueta.

Japan Canned Food Exporters Asso ciation, 1-8 Tamura-cho, Shiba, Mi nato-ku, Tokyo — Director-in-Chie Takeshi Aizawa.

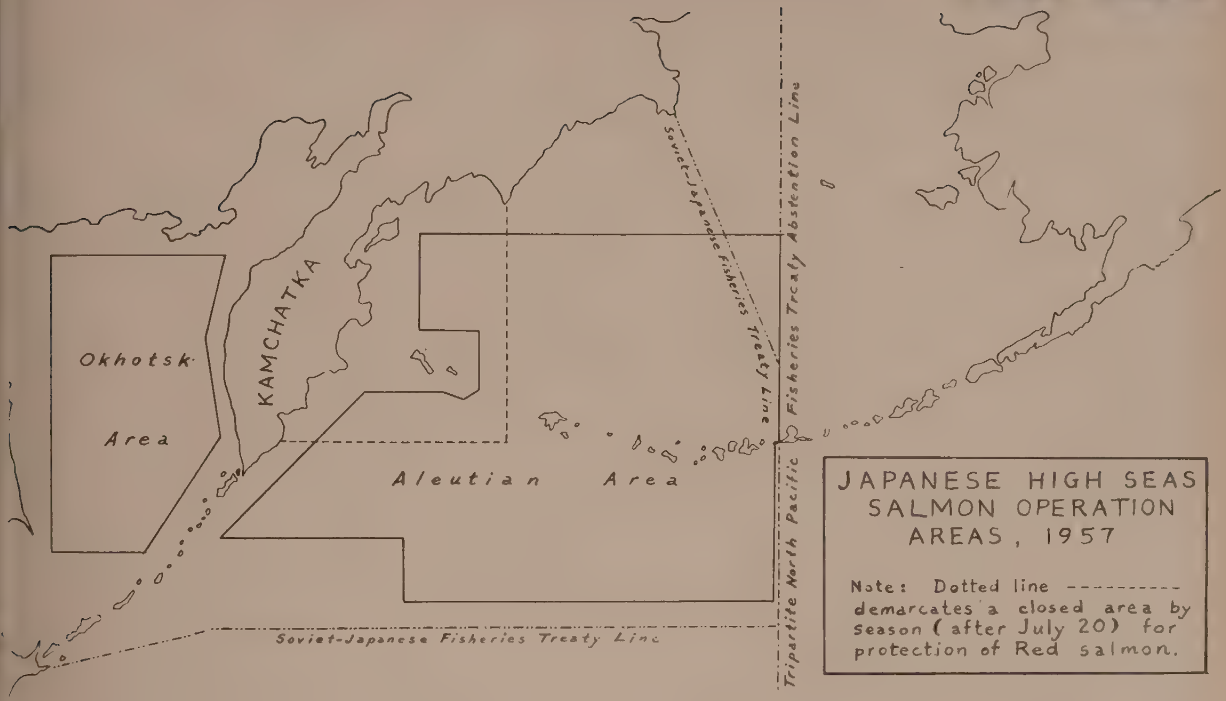
Japan Frozen Food Exporters Ass ciation, Kohan Building, 3-3 Kasum gaseki, Chiyoda-ku, Tokyo—Directo in-Chief Kenkichi Nakabe.

Japan Export Frozen Aquatic Pro uct Manufacturers Association, 2- Ote-machi, Chiyoda-ku, Tokyo — D rector-in-Chief Tsunejiro Hiratsuka.

Japan Export Canned Crab Man facturers Association, Tokyo Buildin Marunouchi, Chiyoda-ku, Tokyo—D rector-in-chief Kyuhi Suzuki.

Japan Export Canned Tuna Man facturers Association, Kokubu Buil ing, 2-18 Marunouchi, Chiyoda-k Tokyo — Director-in-Chief Ben-ic Tamura.

Japan Export Canned Saury Ma facturers Association, Kokubu Bui ing, 1-2 Nihonbashi-Tori, Chuo- Tokyo — Director-in-Chief Wasab Nemoto.


Okhotsk
Area
KAMCHATKA
Aleutian Area
Soviet-Japanese Fisheries Treaty Line
Tripartite North Pacific Fisheries Treaty Abstention Line
JAPANESE HIGH SEAS SALMON OPERATION AREAS, 1957
Note: Dotted line ---------- demarcates a closed area by season (after July 20) for protection of Red salmon.

from all producing countries had been restricted and so Japanese exports had been subject to and dependent upon government negotiations.

Area "C" covered all over the other countries of the world, the main markets being Australia, the Philippine Islands, Belgium and Holland.

In 1956 there seemed to be only little unsold carry-over, mainly in Silver grade, from the preceding packing season. Then a total production of 2,011,649 full cases was made in that year. According to a report made by the Japan Canned Salmon Sales Co., Ltd., the joint selling agency of packers above-mentioned, by September, 1957, a total quantity of 1,754,056 cases had been delivered out of the new pack by the packers, and a total of 1,597,991 cases had been shipped or committed abroad through a restricted number of outlets or trading firms. At this time, of the total actual export from the pack of 1956 amounting to 1,597,991 cases, areas "A," "B," and "C" took respectively 37%, 27% and 36% in percentage of quantity.

Further at the same time, the pack of 1957 was reported to have attained a new peak of 2,423,723 full cases. The quantity whose title had been turned over to the sales corporation was reported to be 2,255,216 cases. Comparison of canned salmon available for export as compared with the situation a year previous appears in an accompanying table.

Japanese Samoa-Based Tuna Catch

Year	Number of Trips landed	Yellowfin	Albacore	Bigeye	Marlin	Other	Total
		CATCH in Tons					
1955	194	2,917	3,253	609	1,075	195	**8,049**
1956	244	2,176	3,810	604	1,221	72	**7,883**
1957	200	...	...	..	...	...	***8,000**

Data from Ministry of Agriculture and Forestry, Statistics and Survey Division. *Estimate. "Marlin" includes Sailfish and Broad-bill Swordfish.

Japanese Public Reactions Other Nations' Positions

- As in April through May of 1956, when negotiation was underway at Moscow on a new fishery treaty and a provisional agreement as regards the quota of salmon to be caught by Japanese within the so-called "Bulganin Line" that season (65,000 metric tons was recognized for catch within the provisional control line), in February through April, 1957, at Tokyo debate was prolonged over establishment of the 1957 quota. This was the amount to be caught by Japanese for the first season within the zone covered by the Soviet-Japanese Fishery Treaty and 120,000 metric tons was finally accepted for the 1957 season only. All the nation's attention was fixed upon the figure then being discussed. Day and night, papers and radio shouted developments. At first the Soviet representative cooly pro-

Aleutian Area Whaling by Japanese

YEAR	Factory-ship	Catcher Boat	WHALES CAUGHT						PRODUCTS (Unit, metric ton)		
			Blue	Fin	Humpback	Sei	Sperm	Total	Meat, Skin	Fin, Whale Oil	Sperm Whale Oil
1952	1	4	55	213	37	14	...	319	4 054	2 313	
1953	1	4	90	470	42	98		700	7 320	4 951	
1954	2	10	145	1,316	136	129	490	2,216	15,369	13 847	4 060
1955	2	14	70	1,360	117	21	1,084	2,652	13,269	10 862	9 144
1956	2	15	70	1,415	37	48	1,598	3 168	17,038	12 343	12 579
1957	2	17	70	1,405		166	1,700	3,341	19,469	12 305	12,445

1957 - Japanese Canned Crab Pack - 1957

(In cases of 48 6½-oz. cans)

CANNERY LOCATION	KING CRAB	OTHER CRABS Zuwai	OTHER CRABS Kegani	OTHER CRABS Hanasaki	OTHER CRABS Total	TOTAL
FACTORYSHIP:						
Tokei Maru (B)	59,850	...	..	...	...	...
Yoko Maru	92,400	. .	.	...	...	..
Hakuyo Maru	84,000	..		...	...	..
Kaiyo Maru	84,000	...	. .	...	...	..
Shiranesan Maru	84,000	. .	...	...	....	...
Total	404,250	...	...	...	...	404,250
LAND:	85,000	25,000	250,000	20,000	295,000	380,000
GRAND TOTAL	489,250	25,000	250,000	20,000	295,000	784,250

NOTE: - Source, Japan Export Canned Crab Manufacturers Association. Pack of "Factoryship" King crab has been completed. Others show current figure as of end of November plus estimate up to end of year.

Factoryship marked (B) operated in Bering Sea close to Alaska. Others operated in Okhotsk Sea off the west coast of Kamchatka.

claimed that the quota had been already fixed at 80,000 metric tons for an off-year and 100,000 metric tons for a big year by a verbal pledge made at Moscow a year previous between their Ishkov and Japanese Kono. Against this was the Japanese proposal for 165,000 metric tons.

In November, 1957, when the United States Section of the North Pacific Commission told Japan of their concern over the effect upon their Alaska Sockeye resources of the Japanese intensified activity on high seas near the abstention line of 175° W, Japanese opinion was again aroused and fishing trade periodicals began to murmur: "Americans have grown greedier and greedier of late;" or, "Americans are aggressive."

One close observer and objective analyst of Japanese character and mental processes (himself a Japanese) commented thus on the national thinking, particularly as it is directed to fisheries:

"Japanese have made Japan the greatest fishing nation in the world. They are proud of their sea-faring ability; and are so conscious of their great population as against their land area that they have a unique psychology, perhaps quite incomprehensible to other nations of the world. In the creation of this psychology in the minds of Japanese there have been and are due causes and reasons.

"What are phases of Japanese mentality as regards fisheries?

"Every Japanese, except the scientist, thinks that fish are inexhaustible; or he wants to think so. Sea-girdled, Japanese people see that fish were what came to their land, and think that if fish do not come, fish can be freely caught where fish are. Japan has had no continental shelf of her own.

"No Japanese feels that marine resources should be protected. Japanese boys and girls have never been, nor are, being taught of the need for conservation. They have no notion of production on a sustained-yield basis, nor have the adults.

Japanese Canned Salmon Export, 1956 and 1957

Species	1956 Pack	1957 Pack	Change, 1957 from 1956
Red	518,986	1,061,307	+542,321
Pink	679,753	1,054,604	+374,851
Chum	220,012	88,294	−131,718
Silver	296,055	11,925	−284,130
King	9,950	999	− 8,951
Tidbit	29,300	38,107	+ 8,807
Total sales	**754,056**	**2,255,216**	**+501,180**
Total pack	**2,011,649**	**2,423,723**	**+412,074**

"A whole Japanese fishery industry, be it fishermen, vessel owners or cannery masters, be it government officials, laboratory investigators or trade journalists, feels that all fish of the seven oceans of the world belong categorically to the Japanese, if they can catch them.

"Japanese feel accordingly that they have to catch and pack as much fish as possible and sell it abroad, beyond their own consumption. Japanese boys and girls are perfectly educated that foreign export is the basis of national existence, and every adult is well convinced of this.

"From such general psychology have grown and crystalized thoughts and feelings which we hear in Japan, like these:

" 'Nothing is more embarrassing than international fisheries treaties of modern times for conservation of marine resources. The Tripartite Treaty is only something that war-winning nations have forced down the throat of the defeated country.'

" 'The Abstention Line is just the same thing as the Rhree Line.'

"Japanese, except scientists, make no distinction between conservation of fisheries by sustained-yield basis and artificial propagation or aquiculture such as pearl-culture, seed-oyster culture or carp-culture in a paddy field. The salmon hatchery is the panacea to all salmon problems for the Japanese.

"This is the Japanese mode of feeling and thinking. Without knowledge of it any claim or argument from any foreign nation against Japan would shoot out of focus and instigate resentment. If psychology is unacceptable, effort is needed to remedy that portion from abroad in an unharried, persevering manner, by distribution of public relations papers in Japan in the vernacular tongue for the Japanese public, while sending to Japan as many spokesmen as possible in order to exchange views and feelings."

East Bering Sea Trawling by Japanese

Year	Motherships	Trawlers	Flatfish Catch in Tons
1954	2	9	13,551
1955	2	6	11,017
1956	4	13	26,759
1957	4	13	*23,419

Data from Ministry of Agriculture and Forestry, Statistics and Survey Division. *Estimated.

NOTE—Mr. Sakai, author of the foregoing article on current developments in the Japanese fisheries, is the editorial representative of **Pacific Fisherman** in Japan and writes staff reports regularly for the monthly issue of this journal. He has been intimately connected with the fisheries of Japan, their industrial character and international significance.

Surging Growth in Pacific Shrimp

• Surging advance of shrimp as a seafood favorite of the American consumer is a phenomena of the mid-century years.

Here is the sea food which has met an apparently insatiable market.

As demand has risen, more shrimp has been found to meet it. As new grounds have been discovered, consumer clamor has called for every pound that they could yield.

• Where are these new grounds? In the Pacific, largely; strung around the American side of the Pacific Basin from Cook Inlet to the Gulf of Guayaquil; but with the Australian coast offering perhaps the greatest potential for tomorrow.

On the Asian side, Pakistan and India already are shipping shrimp to the United States from a resource which bears great promise.

• In the meanwhile, the West Coast of Mexico continues to dominate Pacific production, with Panama's Pacific waters today's second source of United States' shrimp imports.

What are the aspects of commanding interest in today's surging advance of shrimp?

The rise in 1957 of the Ocean Pink shrimp canning industry in the Pacific states. . . .

Continued advance of Panamanian production of both White and Pink shrimp, the Whites of exceptional size. . . . the Pinks in extraordinary quantity.

Development of the shrimp fisheries of Peru and Ecuador by American fishery concerns of the most substantial character, with United State-wide distribution systems. . . .

• So shrimping becomes a primary growth element of the Pacific's ocean industry.

• Shrimp production became a significant part of the fish business of the Pacific states in 1957.

While there had been some fishing for shrimp in California, on Puget Sound and in Alaska for years, this was on a relatively small scale until recent years, and it remained for 1957 to provide the mechanization which gave the growing industry real stature.

"Ocean Pinks", as these West Coast shrimp are being called in the trade, are being fished today all the way from Morro Bay, Calif., to Sumner Strait in Southeast Alaska, and the heaviest landings of shrimp yet recorded on the Pacific were found in the fall of 1957 by the exploratory vessel *Tordenskjold* fishing in the vicinity of the Shumagin Islands, far out toward the Aleutians.

• Although it leaped ahead in 1957, the Pacific Ocean Pink shrimp fishery should not be considered a product of that year. Actually, it is an ancient fishery—so far as Pacific Coast fisheries go — for soon after the Gold Rush days in California Chinese engaged in shrimp fishing by means of sail boats in San Francisco Bay.

In the Petersburg and Wrangell area of Southeast Alaska an industry based on Ocean Pinks developed by the early Twenties, and has continued since. Originally based on a "cold pack" process, Southeast Alaska shrimping in recent years has employed freezing in tins as its fundamental method of keeping the picked shrimp meat for market.

Rise of the industry in the Petersburg-Wrangell area near the mouth of the Stikine River was due in large degree to the presence and abundance of shrimp in the sheltered waters there, and also the adaptability of the Alaska Native population to the work of picking the tiny pink shrimp tails from the shell.

For many years the Stikine area carried the burden of supplying the shrimp cocktail requirements of the Pacific states, where in marked contrast with the standards of other portions of the United States, a shrimp cocktail was composed of some dozens of tiny pink shrimp tails, instead of a few big white ones.

Puget Sound for many years has produced a minor quantity of shrimp, generally of varieties somewhat larger as to individuals than the Ocean Pinks, but never with any substantial volume, and recently in gradually decreasing quantity.

Shrimping on the Pacific outside of a small area in Southeast Alaska came to assume industrial stature only a few years ago when California explorers discovered considerable quantities of small pink shrimp in from 50 to 100 fathoms of water at a number of points along the California coast, and notably in the vicinity of Morro Bay, Bodega Bay, and from Humboldt Bay

SINCE the organization of our company in August 1953, we have distributed throughout the United States approximately 35,000,000 pounds of shrimp.

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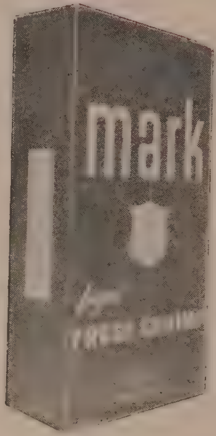
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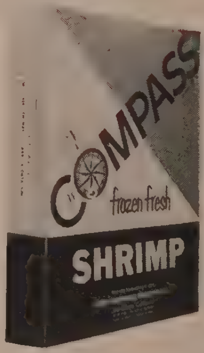
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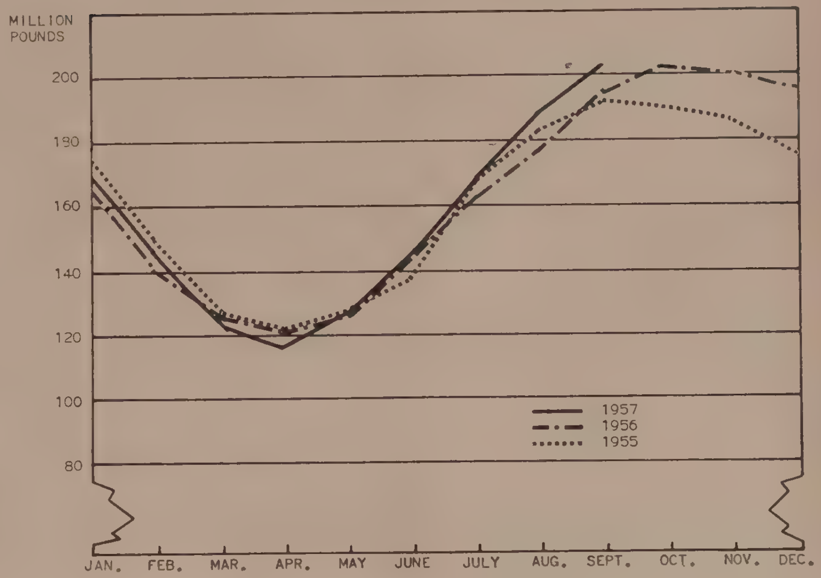
HOLDINGS OF FROZEN FISHERY PRODUCTS, BY MONTHS

(As reported on last day of month)



north to the Oregon line.

The little shrimp seemed to be associated with a peculiar type of green mud bottom for which, for reasons not at all understood, the shrimp have unquestioned preference.

With a view to encouraging the development of a promising marine resource, the California Department of Fish and Game altered its regulations to permit the use, under permit and supervision, of small-mesh trawl gear suitable for taking the tiny shrimp.

As a result of this concession, a minor but consistent shrimp fishery developed at Morro Bay. This was followed after a time by even more significant installations and operations at Bodega Bay and Humboldt Bay, where in the fall of 1957 the catch quotas established by the state were filled well in advance of the end of the season October 15.

Shrimp fishing has proven productive along considerable stretches of the California coast and additional beds continue to be discovered. Cost remain high, however, as the work of picking the tiny shrimp manually is slow and tedious.

When the Oregon fishery authorities noted that the California explorations found shrimp to the Oregon line, but went no further, they arranged for explorations of their own, which readily established the existence of shrimp beds at intervals along the entire Oregon coast.

• British Columbia by this time proved the abundance of Ocean Pink shrimp in large quantities around the Queen Charlotte Islands, and quickly developed a business based upon them—and again upon the coastal Indians as pickers.

• Working along the Washington coast, the U. S. Bureau of Commercial Fisheries exploratory vessel *John N. Cobb* found Ocean Pinks available in abundance at a number of points, and particularly in a substantial area somewhat to the north of Grays Harbor.

In the meantime, Oregon fishermen and operators had made some commercial tests, working out of Tillamook Bay. The shrimp were taken without difficulty, but costs were such that the pioneering proved unprofitable.

In Washington commercial operations were held in abeyance until Ivar Wendt, Seattle seafoods distributor, supported a venture by which a "Peelers" machine was brought from New Orleans and installed in the plant of the Kaakinen Sea Food Co. at Westport, Wash. This machines removes the shrimp meat from the shells of whole shrimp, and functions effectively even on very small individuals.

Although the venture had some early problems, due primarily to the fact that the Peelers machine operates on raw rather than cooked shrimp, and the shelled shrimp tails tended to fade in cooking to a color much paler than that to which the Pacific market was accustomed, eventually these were overcome.

Moreover, ventures in the canning of the shrimp meat proved highly satisfactory, and the little pink morsels began immediately to command a place—and a *new* place—in Pacific seafood selling. With mechanized peeling or picking, costs became competitive and the traditional Pacific Ocean Pink shrimp delicacy could be made available to grocery store patrons everywhere.

Washington shrimping soared, and a new ocean industry was born.

• It remained, however, for the autumn of 1957 to yield a striking development in the fishing end which indicated the possibility that Pacific Ocean Pink shrimp may only be in its beginning.

The schooner *Tordenskjold*, Capt. Carl Serwold, under charter to the U. S. Bureau of Commercial Fisheries for exploration, made spectacular catches of shrimp in the vicinity of the Shumagin Islands, south of the Alaska Peninsula. Her catches ran as high as 3,800 lbs. of shrimp in a 30-minute tow near Beaver Bay on the south side of the Peninsula.

Although King crab exploration was the *Tordenskjold's* principal purpose, she switched to small-mesh Gulf of Mexico shrimp trawls when this shellfish began to show in her catches. The trawl used had an opening of only 40′, being a small one designed for exploration rather than commercial production.

Best shrimp fishing was found in 50 to 80 fathoms of water. Many drags produced a ton of shrimp per half-hour and three consecutive 30-minute drags off Pavlof Bay took 3,300 lbs., 3,600 lbs., and 1,560 lbs.

With such abundance demonstrated, and with cannery and cold storage facilities available in Sand Point and elsewhere in the vicinity, it is anticipated that commercial utilization of the new-found Shumagin area resource will be undertaken, perhaps this year.

Mechanization is the Key

• Mechanization of the picking of Ocean Pink shrimp provided the key which opened to industrialization the as yet undetermined resources of the coastal waters of the Pacific states, British Columbia and Alaska.

Not until the proven Peelers machines were introduced from New Orleans was it possible for Pacific operators to compete cost-wise with their Ocean Pinks.

Why?

Because of the small size of these Pacific shrimp, with their enormous manpower demand where they are picked by hand. At the same time, the mechanical pickers operate most

1957 -FISHERY PRODUCTS IMPORTED FROM MEXICO-

(ENTERED THROUGH CALIFORNIA AND ARIZONA)

Species	Nov. '56	Dec. '56	Jan. '57	Feb.	March	April	May	June	July	August	Sept	Oct	TOTAL
	Pounds												
FISH.													
Cabrilla	...	542	3,408	...	11,872	...	73,357	66,814	3,600	21,873	9,504		190,970
Corbina, fresh & frozen	20,410	93,758	338,043	372,597	865,801	363,167	358,019	12,955	41,051	6,614	...	...	2,472,415
Flounders	1,946	234	2,767	5,020	...	...	...	1,081	74,166	...	...	...	85,214
Sea Bass: White & Black	169,142	103,487	90,301	196,303	77,154	44,412	13,123	4,463	67,612	8,000	...	...	773,997
Shark	...	...	...	...	...	...	...	...	...	...	...	...	
Tortuava	...	...	...	...	...	...	...	17,782	24,345	...	3,000	...	45,127
Swordfish	...	...	...	...	...	27,431	...	...	...	10,000	...	...	37,431
Unclassified: fr. & frz.	62,139	27,893	62,358	35,065	124,829	232,201	57,361	48,533	143,460	24,428	15,469	23,796	857,532
Yellowtail	...	...	...	...	...	...	6,500	...	...	...	...	...	6,500
Tuna - Bluefin	...	...	...	...	...	...	...	66,000	350,760	...	...	...	416,760
TOTAL FISH	253,637	225,914	496,877	608,985	1,079,656	667,211	508,360	217,628	704,994	70,915	27,973	23,796	4,885,946
SHELLFISH:													
Abalone: Fresh	...	...	...	...	...	...	...	...	...	...	...	...	...
Canned	449,136	340,200	254,024	234,314	51,600	71,040	555,896	792,052	330,278	1,109,912	318,720	396,656	4,903,828
Dried	3,343	4,550	1,950	6,450	2,500	...	...	...	...	8,000	2,370	...	29,163
Fresh and Frozen:													
Clams & Clammeat	9,092	9,311	12,602	14,025	5,306	6,072	20,508	41,914	177,407	105,869	42,432	164,820	609,358
Mussels	...	...	...	...	...	...	...	...	...	...	...	...	
Shrimp	3,625,283	2,531,157	2,859,571	1,471,437	1,961,305	449,523	305,080	1,975,895	1,582,565	1,313,886	2,959,434	5,255,026	26,290,162
Spiny Lobsters	394,716	381,031	418,394	473,807	140,918	...	...	...	800	...	...	274,811	2,084,477
Unclass. Shellfish	...	5,028	400	220	23,878	51,425	...	1,600	...	...	9,000	...	91,551
TOTAL SHELLFISH	4,481,570	3,271,277	3,546,941	2,200,253	2,185,507	578,060	881,484	2,811,461	2,091,050	2,537,667	3,331,956	6,091,313	34,008,539
OTHER FISHERY PRODUCTS:													
Livers: Unclassified	...	2,500	...	...	...	...	...	...	...	...	...	...	2,500
Sea Bass	...	...	...	2,000	...	...	...	...	164	...	...	...	2,164
Shark	...	50,352	18,054	10,924	...	...	58,782	35,366	27,682	10,934	1,551	27,842	241,487
Miscellaneous	287,900	169,610	26,000	22,000	12,270	8,051	104,398	107,332	19,215	133,020	73,480	30,000	993,276
Meal	429,407	368,440	209,091	107,090	26,344	26,400	131,978	276,920	...	...	...	...	1,575,670
Shark Fins	...	1,899	3,003	1,214	...	1,066	5,015	13,396	8,175	1,400	695	3,215	39,078
TOTAL PRODUCTS	717,307	592,801	256,148	143,228	38,614	35,517	300,173	433,014	55,236	145,354	75,726	61,057	2,854,175
GRAND TOTAL	5,452,514	4,089,992	4,299,966	2,952,466	3,303,777	1,280,788	1,690,017	3,462,103	2,851,280	2,753,936	3,435,655	6,176,166	41,748,660

effectively and are economically best adapted to shrimp of small size. Thus they have proven a "natural" for the Pacific product.

By the end of 1957 shrimp picking machines of two makes had been installed by the following concerns:

Kaakinen Fish Co., Westport, Wash., three machines;

Pacific Shrimp, Inc., Warrenton, Ore.;

Seaside Clam Co., Warrenton, Ore.;

Harbor Sea Foods, Inc., Bay Center, Wash.;

Harbor Sea Foods, Wrangell, Alaska (not connected with the Bay Center company);

William F. Smith, Wrangell, Alaska;

Crown Sea Foods, Inc., Hoquiam, Wash.;

E. H. Bendiksen, South Bend, Wash.

• Rise of the Pacific shrimp business late in 1957 resulted in the organization of West Coast Shrimp Producers Association with headquarters at Pier 46, Seattle, Wash. Ivar Wendt, Seattle seafood producer and broker, is chairman of the association and Steve Sarich of Harbor Sea Foods, Inc., is secretary.

First Year's Production

• Production of Pacific canned Ocean Pink shrimp in 1957, the first year of canning operations, was limited to 45,489 cases, basis of 48 half-pound tins, wet pack, each can containing 4½ oz. of shrimp meat, drained weight.

Pack figures here are given on the *basis of 48 cans per case*, which is taken as the standard case, although industry practice puts practically all canned shrimp in cases containing 24 cans.

The pack of 1957 was put up by firms as follows:

Firm	Cases 48 halves
Harbor Sea Foods	1,600
Kaakinen Fish Co.	33,143
Wm. F. Smith	11,746
	45,489

Substantially larger production can be expected in 1958 as result of the installation of additional peeling machines. At the end of 1957 at least five additional peeling machines were being installed or were on order; with several other concerns expected to become active in the new industry before the 1958 production season ends.

• Price of the tiny Ocean Pink shrimp per case of 24 halves, tuna style, containing 4½ oz. drained weight of wet pack shrimp was generally $7.50 early in 1958.

Brokers at that time were reporting demand increasing markedly, in part because of the shortage of Gulf shrimp, but also in considerable degree because of the cleanliness, tenderness and flavor of the Ocean Pink tinys.

Washington and Oregon coast fishing fell to nearly nothing during December, 1957, and the following January on account of winter gales. Alaska trawlers, working the inside, protected waters around Petersburg and Wrangell, were the mainstay for winter production; but the onset of spring along the ocean coast of Washington and Oregon was expected to produce a sharp up-turn in deliveries to the canneries on Grays Harbor and the Columbia River.

• Of the shrimp imports entering the United States during the first six months of 1957, more than 61% came from Pacific sources.

Principal imported shrimp suppliers for the United States market are: West Coast of Mexico, East Coast of Mexico, Panama (Pacific side), Ecuador, Japan, Hong Kong, India, Cuba, Canada, Pakistan, in that order.

Fastest growing volume of shrimp imports came from Australia, whose trade with the United States in the first six months of the year was 22 times that of January-June, 1956.

• Where does the United States shrimp trade look for future supplies for its continually growing demand?

To the Pacific; and notably toward the coastal fisheries of California, Oregon, Washington, British Columbia and Alaska.

To the Pacific; and particularly toward Central and South America.

To the Pacific; and specially toward Australia and the countries of southern Asia, specifically India and Pakistan.

Panama Is Phenomenal

• Panama is the phenomenon of Pacific shrimping growth in recent years;

her exports to the United States rising from nominal poundage in 1950 to an estimated 8,000,000 lbs., headless weight, in 1957.

Moreover, while it is to be expected that the tonnage of White shrimp from Panama will level-off, resources of Pink shrimp, which are taken seasonally in the first four months of the year, cannot as yet be estimated.

Extension of the fishery further from shore, and to deeper levels, reveals continually increasing quantities of Pink shrimp.

A mid-November official report sketched the picture thus:

"With the equipment now available and in the offing, Panama will soon be approaching maximum productivity of White shrimp. With the increase in boats and processing facilities, the landings of Pink shrimp should increase, providing the runs, which come between January and April, are as good as they have been in the past two years. Fishing in waters not now being fished might produce Pink shrimp throughout the year. This has not yet started. At present when the Pink shrimp runs occur the plants sometimes become swamped and the boats are frequently placed on limits or required to head the catch at sea.

"In 1958 Panama shrimp exports can be expected to be as large, and probably greater, than those for 1957."

- Panama's shrimp fleet has undergone striking expansion in recent years, and this in spite of the law which requires all except the long-active vessels to be products of Panamanian boat yards.

Late in 1955 count showed approximately 90 trawlers fishing shrimp in the Gulf of Panama. In mid-June, 1957, the count showed 157 trawlers in operation and 50 under construction. Moreover, the average size of the vessels is increasing. In 1955 the norm was 50′. Now the newer boats are 60′ in length or better. They are wholly modern craft, mostly following Gulf of Mexico type, but with a considerable number built to designs by H. C. Hanson, Seattle, and other Pacific Coast naval architects.

With 200 vessels active during the early spring fishery of 1958, large scale production was certain and processing plants have been increased to care for the expected catch. Daily freezing capacity in Panama is now reported approaching 100,000 lbs. of headless shrimp.

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MEXICAN SHRIMP EXPORTS THROUGH CALIFORNIA AND ARIZONA

1956-57				1955-56			
MONTH	Fresh Pounds	Frozen Pounds	Total Pounds	MONTH	Fresh Pounds	Frozen Pounds	Total Pounds
November 1956	473	3,624,810	3,625,283	November 1955	7,170	6,980,066	6,987,236
December 1956	150	2,531,007	2,531,157	December 1955	17,453	5,486,049	5,503,502
January 1957	4,330	2,855,241	2,859,571	January 1956	4,608	5,826,835	5,831,443
February 1957	350	1,471,087	1,471,437	February 1956	....	3,779,397	3,779,397
March 1957	....	1,961,305	1,961,305	March 1956	341	3,021,699	3,022,040
April 1957	....	449,523	449,523	April 1956	....	598,574	598,574
May 1957	....	305,080	305,080	May 1956	235	1,144,857	1,145,092
June 1957	....	1,975,895	1,975,895	June 1956	6,000	2,763,545	2,769,545
July 1957	570	1,581,995	1,582,565	July 1956	....	2,100,567	2,100,567
August 1957	....	1,313,886	1,313,886	August 1956	....	1,987,976	1,987,976
September 1957	220	2,959,214	2,959,434	September 1956	1,724	3,381,162	3,382,886
October 1957	7,770	5,247,256	5,255,026	October 1956	....	3,555,875	3,555,875
TOTAL	13,863	26,276,299	26,290,162	TOTAL	37,531	40,626,602	40,664,133

Panamanian capital, and enjoying certain concessions extended under the law, dominates the shrimp industry in Panama, with production reported to approximate 75% of the exports. Since its income is derived exclusively from foreign sales, its operations are tax-free.

In 1957 the cooperative constructed new and expanded facilities at Taboga Island, about 10 miles off Panama City, where it has facilities for packing shrimp, repairing vessels, reduction of whole fish and waste from its shrimping operations.

● Panamanian White shrimp include three varieties which are indistinguishable by the layman. About one-third of the production runs under 10 to the pound, headless; 50% run 11/15; 10% run 16/20; 5% 21/35; about 2% are broken.

Pink shrimp are much smaller, the largest running 21/25 to the pound, headless, but the majority of the catch falls in the 30/50 count to the pound.

Although the great majority of the Panamanian shrimp fishing is done in the Gulf of Panama, there are operations also in the Gulf of Chiriqui, lying to the westward, and extending to the Costa Rican boundary. The catch from all shrimp grounds is landed in Panama City or its immediate vicinity.

Ecuador—Source No. 3

● Speed with which the shrimp industry can grow in the Americas is demonstrated by the case of Ecuador, the No. 3 supplier of foreign shrimp for the United States market. The shrimp business there was non-existent as an industry prior to 1954, when operations began with American operators pioneering the fishery.

Most of the fishing is done in the Gulf of Guayaquil, with lesser centers at Manta, on the ocean coast, and fishing also done in the northly extremity of the coast, close to the Colombian border.

Freezing is all done at Manta or Guayaquil, with one floating freezer taking position on the outer coast as fishing may indicate. Shrimping operations are conducted from five ports: Esmeraldas, near the Colombian border; Manta, about midway between Esmeraldas and the Gulf of Guayaquil; Playas, Posorja and Guayaquil, all on the Gulf. The floating freezer generally is stationed at Esmeraldas. At Manta, where the Van Camp Sea Food Co. has an interest in the operation, it is necessary to lighter the boxed headless shrimp through the surf. Substantial improvements are being made in the facilities at this strategic point.

● Recently Ecuador has adopted a modified governmental policy toward foreign-financed fishery operations and has made such activities more attractive to outside capital.

In that country the fishery resources are considered as belonging to the nation, the government granting 10-year contracts, which require a considerable period for negotiation. They require a minimum investment, with a substantial good-faith deposit. Foreign-flag craft may be used for a year, when all must come under Ecuadorean registry.

Exemption from export taxes is granted, while specific imports may be brought in free of duty. Exemption from income tax is also granted on capital for equipment and development of the business. A percentage of net profit is paid to the government during the period when other taxes are not imposed.

Foreign technical personnel may be employed when qualified Ecuadoreans are not available.

Individual doing-business contracts vary with the needs of the developers.

Mexico Is Dominant Supplier

● Mexico of course is the primary source of United States shrimp imports, accounting for at least two-thirds of the shipments of foreign-caught shrimp sold on the American market—and this in spite of the astonishing rate of gain manifest by some of the producing countries. Although their business has grown prodigiously, the total still is limited and Mexico continues to dominate a picture.

There are four kinds of shrimp caught commercially on the west coast of Mexico: the Blue, or "azul"; the White, or "blanco"; the Brown, or

Mexican Shrimp Landings

(Metric Tons)

	Pacific Coast	Gulf of Mexico
1957—Jan.-June	5,918	3,621
1956	17,887	9,080
1955	18,114	7,824

Sources of Mexican Shrimp

	Percentage of Total	
Year	Pacific	Gulf
1957—Jan.-June	62.0	38.0
1956	66.3	33.7
1955	69.8	30.2

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"cafe"; and the Red, or "rojo", "rosado", and "piojillo".

The Blue and White shrimp are rarely caught in depths greater than 15 fathoms; the Brown is usually taken between 15 and 30 fathoms; and the Red is rarely taken in less than 20 fathoms, and often to 45. The market preference definitely is for the Blue and White shrimp, but as they become scarcer with the progress of the season the trade accepts the Brown and Red varieties readily.

● The Mexican west coast shrimp industry suffered severe damage from a hurricane during the fall of 1957, particularly in the vicinity of Mazatlan, where the shrimp fleet of 182 vessels was badly damaged, 40 vessels being reported lost, with 36 seriously damaged and 20 to some extent.

In addition it was reported that four of the freezing plants were rendered inoperative for a time, although plants at Culiacan and Topolobampo aided their less fortunate competitors.

It was estimated some time after the disaster that as a result of the storm there would of necessity be a reduction of at least 1,000 tons in shrimp landings for the remainder of the calendar year. Some informed source believed this figure far too low, and that 2,000 tons would be a more realistic estimate.

1957 Shrimp Catch Down

● For the first six months of 1957 the catch of shrimp by Mexican vessels was only about 77% of that for the same period in 1956, due primarily to the severe fall-off in yield of the Pacific fisheries.

In the six months between March 15, 1957, and Sept. 15, 1957, the Mexican shrimp trawler fleet increased by more than 20%, with 117 boats added on the Gulf and 47 on the Pacific.

CAROLYN FOLEY

Florida-built shrimper in the Peruvian shrimp fishery. This typical Gulf of Mexico craft is General Motors powered and came to Peru via the fishery of Panama, where she could not remain under the law limiting shrimping to boats which fished before 1953, or were built in Panama.

Estimates in Mexico late in 1957 were that by the end of that year there would be 1,000 trawlers fishing shrimp in Mexican waters. In recent months the construction and acquisition of trawlers for the Mexican Gulf shrimp fisheries were increasing more rapidly than on the Pacific, although the western fleet was still somewhat in the lead.

The last count of vessels available at press time of this issue showed 425 trawlers fishing for Mexico in the Gulf and 525 in the Pacific.

● Construction tendency among Mexican shrimp trawlers is toward somewhat larger vessels, with steel favored and this type appears to be somewhat cheaper to build in Mexico than wooden vessels.

Currently the Pacific shrimp freezers in Mexico number 22 plants on the Pacific, with 14 on the Gulf coast.

The open fishing season for shrimp on the Pacific Coast for the inshore bays, estuaries, and lagoons is from September 1 through April 15 the following year. In southern Sinaloa and in Nayarit where "tapo" or weir fishing is permitted, inshore fishing, although permitted until April 15, generally stops around the first of December owing to scarcity of shrimp.

Trawling for shrimp is prohibited in all inshore waters of Mexico. In offshore waters along the Pacific Coast from Baja California through Nayarit, trawling is prohibited from March 16 to April 15. This closed season may be extended until May 15 depending upon the proportion of spawning shrimp appearing in samples taken by officials of the Bureau of Fisheries and Allied Industries. In 1957 the closed season lasted until May 15. It is probable that the 1958 closed season will be for two months also.

There is no closed season for trawling for shrimp in offshore waters south of the State of Nayarit.

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CRAB

1957 - Pacific Canned Crab - 1957

COMPANY	Cannery Location	Cases, basis 48 Halves
ALASKA		
KING CRAB:		
Alaska Fresh Co.	Homer	2,417
Island Seafoods, Inc.	Kodiak	12,079
King Crab, Inc.	Kodiak	11,742
Pacific American Fisheries, Inc.	King Cove	15,199
J. E. Shields Co.	Bering Sea	4,552
TOTAL KING CRAB		45,989
DUNGENESS CRAB:		
Coastal Glacier Seafoods, Inc.	Pelican	1,537
O'Toole, Dermott,	Tenakee Springs	2,096
Shelter Cove Packing Co.	Cordova	210
TOTAL DUNGENESS CRAB		3,843
TOTAL ALASKA		49,832
BRITISH COLUMBIA		
Queen Charlotte Canners, Ltd.	Massett	9,954

COMPANY	Cannery Location	Cases, basis 48 Halves
WASHINGTON		
Chinook Packing Co.	Chinook	720
Crown Packers	Hoquiam	4,925
Grays Harbor Crab Co.	Aberdeen	1,236
Harbor Seafoods Co.	Bay Center	5,100
Nelson Crab & Oyster Co.	Tokeland	26,500
Kaakinen Fish Co.	Westport	996
Pacific Pearl Seafood	Westport	2,686
Sutterlin, Richard,	Westport	3,940
Whiz Fish Products Co.	Hoquiam	500
TOTAL WASHINGTON		46,603
OREGON		
Coos Bay Farmers Cooperative	North Bend	482
Point Adams Packing Co.	Hammond	10,028
TOTAL OREGON		10,510
CALIFORNIA		
Lazio Fish Co., Tom,	Eureka	303
TOTAL DUNGENESS CRAB		71,213
TOTAL KING CRAB		45,989
GRAND TOTAL, ALL CRAB		117,202

NOTE:- All cases have been counted on the basis of 48 Halves, but no attempt has been made to distinguish between the two sizes of "halves" - "standard" and "Tuna size". It should be noted that the large majority of the crab pack currently is canned in the latter style, 6-1/2 oz. net. In current commercial practice the Pacific canned crab pack largely is marketed in half-cases of 24 cans, instead of in the 48-can standard case.

CRABS

1957 a Year of Abundance

● Abundance marked the Pacific crab business in 1957 for the second successive year — abundance which carried prices down as they responded to the inevitable Law of S. and D.

But the fact remains that the overall economic return from the industry was comparable with its better years—lower prices, true; but higher volume. Taking canned crab only, the American production for the year figures out above $2.4 million in value in spite of the fact that the goods were selling late in 1957 for from 20 to 25% under their "normal" level. The canned crab valuation for 1957 was the fourth highest in history, while the American pack of 107,000 cases was the third best in volume.

● King crabs accounted for part of the upward trend in earnings, as well as in volume, for with just under 50,000 cases of King crab canned, 1957 saw the largest production of this species in the can since the start of the American branch of this business. At the same time the imports of Japanese canned crab continued their steady gains in the American market.

Volume of King crab packing was somewhat short of that for the Dungeness or Pacific variety, but the high

Japanese Canned Crab Production and Export

(In Cases of 24 lbs. net)

	PACK					EXPORT		
	KING CRAB			OTHER CRABS	Total	King Crab	Other Crabs	Total
	Ocean	Land	Total					
1948	...	17,712	17,712	2,381	20,293	15,939	980	16,919
1949	...	34,639	34,639	1,607	36,246	46,266	7,258	53,524
1950	...	108,487	108,487	20,524	129,011	89,544	14,995	104,539
1951	...	139,397	139,397	55,209	194,606	83,329	19,524	102,853
1952	...	98,116	98,116	28,149	126,265	85,236	26,256	111,492
1953	58,240	140,178	198,418	71,970	270,388	156,699	47,318	204,017
1954	59,850	85,063	144,913	313,914	458,827	108,456	211,855	320,311
1955	206,419	126,452	332,871	434,435	767,306	196,089	261,394	457,483
1956	427,350	105,980	533,330	252,873	786,223	258,598	323,661	582,259
1957	404,250	85,000	489,250	295,000	784,250	250,000	250,000	500,000

NOTE - Source, Japan Canners Association, except for 1957, where figures are preliminary and subject to correction. There had been no Ocean pack before 1953.

Pacific Canned Crab

(Shown in Standard Cases of 48 half-pound Cans)

YEAR	Alaska	Washington	Oregon	California	American Total		British Columbia	North American Total	YEAR
					Cases	Value			
1957	49,832	46,603	10,510	303	107,248	$2,512,972	9,954	117,202	1957
1956	41,300	32,512	9,904	660	84,376	1,988,351	11,871	96,247	1956
1955	24,534	9,450	2,959	156	37,099	972,610	7,942	45,041	1955
1954	41,642	36,141	24,717	362	102,862	2,618,464	9,717	112,579	1954
1953	21,026	15,482	7,898	146	44,552	1,303,606	5,037	49,589	1953
1952	22,647	9,076	9,624	237	41,584	1,173,211	5,148	41,584	1952
1951	26,753	19,885	39,878	1,500	88,016	2,332,424	4,159	68,016	1951
1950	25,927	23,270	28,075	1,260	78,532	1,868,680	7,283	85,815	1950
1949	13,198	65,004	36,652	. .	114,854	2,547,765	4,839	119,693	1949
1948	36,076	104,362	56,982	3,500	187,420	4,264,622	3,500	190,920	1948
1947	10,158	54,756	34,582	6,624	106,120	2,037,904	2,481	108,601	1947
1946	15,792	19,263	29,106	15,194	79,356	2,271,965	1,455	80,811	1946
1945	15,760	9,070	896	.	25,726	398,898	.	25,726	1945
1944	13,376	16,524	10,968	. . .	40,868	653,888	385	41,253	1944
1943	9,386	18,332	20,874	. . .	48,592	782,173	. . .	48,592	1943
1942	7,766	26,052	45,338	. .	79,156	1,266,496	885	80,041	1942
1941	11,126	13,232	13,346	.	37,704	311,822	3,386	41,090	1941
1940	12,828	8,634	3,792	. . .	25,254	178,021	3,794	29,048	1940
1939	11,978	2,716	8,406	. . .	23,100	184,254	2,049	25,149	1939
1938	.		. .	. . .	27,016	258,375	2,157	29,173	1938
1937	. .	. .	. . . .	. . .	27,394	269,699	1,546	28,940	1937
1936	. . . .	. . . . .	. . . .	. . .	14,758	124,925	. . .	14,758	1936
1935	. .	. .	. .	. . .	13,840	106,832	. .	13,840	1935
1934	. . . .	. . .	.	. . .	22,869	184,052	.	22,869	1934
1933	. .	. .	. .	. . .	17,564	134,330	.	17,564	1933
1932		.	.	.	9,314	73,112	. .	9,314	1932
1931	.	. . . .		. . .	263	2,104	. .	263	1931

price of King gave it a shade more than half of the valuation.

Growth of King crab canning, and freezing also, was due to the fact that this variety shared with the Dungeness species the unusual abundance of crabs which appeared throughout the Pacific area; and also to the added emphasis given this product in the Kodiak and Cook Inlet areas. Moreover, King crab canning on a substantial scale was initiated far out on the Aleutian Peninsula by the Pacific American Fisheries, largest of American salmon canners.

● Despite the large pack of 1957, and doubtless due to the attractive prices which could be quoted, the trade entered 1958 with stocks in first hands virtually exhausted. This was due in large part to the late resumption of industrial production in the fall of 1957 as fishermen, particularly in California, held back from fishing in protest against continued low prices.

The frozen crab market was believed to be more adequately supplied with frozen crabmeat, however, and this exerted a depressing effect upon prices to the fishermen. As 1958 opened most Pacific ports were paying 8c per lb., ocean run, for live crabs.

● Just why crabs should be abundant all around the North Pacific Rim in 1957 is one of those enigmas which occur in Nature in the sea.

Dungeness crabs from San Francisco Bay up the coasts of California, Oregon, Washington, British Columbia and Alaska to Prince William Sound; King crabs west from there, to Cook Inlet, to Kodiak, out along the Alaska Peninsula to the Shumagin Islands and the Aleutian Islands, and into Bristol Bay; King crabs there and down the Asian side, into the Okhotsk Sea; Kegani, Zuwai, Hanasaki, all were abundant.

Presumably this was due to some condition in the sea during the life of the crab generation which came to maturity in 1957; but that any favorable circumstance should apply to such widely discrete species as Dungeness and Kegani, and over such enormous geographic distances, will confound the most credulous.

Washington Crab Landings

YEAR	Puget Sound Pounds*	Grays Harbor Pounds**	Willapa Harbor Pounds**	Columbia River Pounds**	TOTAL POUNDS
1936	441,892	451,890	865,194	....	1,758,976
1937	500,104	643,234	1,441,352	3,428	2,588,118
1938	521,180	387,728	1,831,716	....	2,740,624
1939	441,122	620,004	2,153,496	....	3,214,622
1940	428,692	1,134,182	3,341,754	....	4,904,628
1941	514,184	1,293,222	3,968,152	206,984	5,982,542
1942	989,186	2,262,696	2,134,818	249,304	5,636,004
1943	1,267,024	2,732,090	1,052,550	56,660	5,108,324
1944	1,790,118	2,622,316	1,529,196	83,326	6,024,956
1945	1,993,398	1,961,978	1,439,204	4,838	5,399,418
1946	2,284,810	3,674,536	2,022,004	121,335	8,102,685
1947	1,512,808	6,599,380	3,822,288	38,184	11,972,660
1948	1,933,426	9,080,584	4,241,256	614,184	15,869,450
1949	1,355,148	7,633,157	3,204,240	950,006	13,142,551
1950	2,373,316	2,171,072	1,427,042	399,440	6,371,166
1951	1,547,502	1,321,400	1,806,096	154,970	4,829,968
1952	915,807	1,373,708	1,892,842	82,580	4,264,937
1953	1,190,186	2,700,206	3,035,435	78,263	7,004,090
1954	1,667,085	3,099,287	3,356,879	191,177	8,314,428
1955	1,212,743	3,269,131	2,457,479	209,871	7,149,224
1956	597,067	3,832,842	4,082,936	329,386	8,842,231
1957	832,406	6,803,124	2,944,548	379,899	10,959,977

*Conversion 22 lbs. per dozen. **Conversion 24 lbs. per dozen.

NOTE: - 1957 Puget Sound figures are incomplete but include best available estimates to Dec. 31, 1957.

Eviscerated Crab

● A "break-through" was scored in 1957 in the long, hard drive to expand the market for Pacific crab-in-the-shell beyond the coastal states where fresh crab of assured quality could be distributed.

Many efforts have been mounted before, and some have shown high promise, but early gains have proven to hold and the net increase in market area and its acceptance of frozen Pacific crab has been limited indeed.

"Eviscerated crab" in 1957 scored sucess so striking, and so well sustained by repeat business, that this departure in extended crab marketing was rated by close observers with as a clean "break-through" with a significant chance for real permanence of gain.

This was achieved in spite of the handicap of the stuffy term "eviscerated" with which the development was handicapped from the start. Longer and more steady strides might well have been taken if the new item had been introduced under a descriptive term lending itself better to merchandising, and complementing rather than handicapping the colorful character of the table-ready cooked crab wearing its brilliant shell.

● However, "eviscerated crab" it was called, and "eviscerated crab" it still is. It has gone a long way in a little over a year in spite of the burden of its name.

And what *is* it?

Obviously, it is frozen crab from which the viscera has been removed, but there are other specialized characteristics as well.

In this process fresh crab meeting a specific standard of size and weight is butchered by removing the shell. The viscera if then carefully washed away under a stream of fresh water, while the inside of the shell is carefully cleaned. The meaty portions of the crab with the legs attached are then cooked after the normal process in salted water; while she shell is cooked separately. This serves to sterilize it, and also to bring out the bright red coloration characteristic of the cooked Pacific Dungeness crab.

After cooling, the shells are then placed on the cooked crabs, and they fit well—for remember the crabs were of uniform size and weight. The legs are then tucked about the crab, and may be held firm by rubber bands which are later removed. The crabs in their shells are then shelved or air-blast frozen, weighed and marked with the exact weight, and then heavily glazed.

When a thick protective glaze has been built-up, the crabs are placed on a pad of absorbent cellulose material in a paper "boat" such as is used in pre-packing meats. The pad takes up the moisture later released by the glaze when the crab is thawed. All of this is then introduced into a polyethylene or Milar envelope, from which as much of the air as possible is expelled before the pouch is heat-sealed. The crabs in this form are then packed in master cases for storage and shipment.

NEW
EVISCERATED
COOKED
SAN
CLEANED
READY TO
DUNGENESS
CRAB

Eviscerated Crab is one of the resounding successes scored by Pacific sea food marketin in recent years. Unless some previous attempts to merchandising Pacific crab frozen an packaged, this product has not only built repeat sales but has called out enthusiastic respons from consumers throughout portions of the United States where Pacific crab have not previous been able to penetrate. The crabs are dressed, all viscera removed, the shell replaced and th ready-to-eat fully cooked crab is then frozen and heavily glazed. They are packed in th plastic pouch with an absorbent pad to gather the moisture from the glaze when the cra is defrosted for the table.

● How does this product differ from the brine-frozen whole crabs in the shell marketed with considerable success in polyethylene bags a few years ago?

In the first place, by not being brine frozen. Where they are frozen without contact with brine it is possible to build-up a protective glaze. In the case of the brine-frozen crabs glazing was not successful and the crabs had to depend entirely upon the plastic bag to prevent dehydration.

Secondly, and perhaps more important, the crabs actually are dressed —"eviscerated", if you insist. This is a most important factor in the promotion of repeat business, for merchandisers have found that except on th Pacific Coast consumers simply wer not prepared to cope with whole crab which required dressing before the could be presentable. The crabs sol on the basis of promotion and the very real eye-appeal, but the inex perienced housewife who found her self face-to-face with the problem c dressing a crab for the first time wa not a good prospect for repeat bus ness.

Overcoming at once the problem of dehydration and repeat orders, th eviscerated crabs introduced in 195 score a clean hit. Moreover, it cam at a fortunate time, for crab produc tion during the 1957 season was th heaviest in years, resulting in lo prices which made introduction of a entirely new item easier than migh otherwise be the case.

OREGON CRAB LANDINGS

Year	Dozen												
	Jan.	Feb	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Tota
1945	17,006	19,199	17,315	41,706	47,675	43,305	10,820	10,413	4,226	9,135	9,807	12,419	243,0
1946	17,065	21,815	30,732	34,074	80,626	34,414	13,694	5,783	4,568	8,859	12,834	14,814	279,2
1947	22,660	27,457	40,555	46,527	78,649	50,317	20,806	7,188	3,813	3,686	8,621	3,971	314,2
1948	35,592	37,973	63,516	87,353	96,885	34,841	15,171	9,098	4,969	4,205	2,662	9,206	401,4
1949	49,617	22,681	52,571	60,613	73,273	45,310	19,539	11,433	4,828	4,770	8,914	20,312	373,8
1950	22,414	26,186	38,315	35,513	46,910	27,012	6,997	4,145	3,914	3,095	9,730	25,864	250,
1951	34,161	39,080	41,361	49,042	54,348	11,740	4,764	3,742	2,065	. .	. . . .	. . . .	240,
1952	19,864	23,672	28,024	42,256	45,842	11,150	5,268	3,577	2,233	5,618	15,981	14,780	218,2
1953	15,790	28,080	49,241	58,797	60,383	18,252	6,143	3,822	2,769	4,087	17,105	58,339	322,
1954	61,369	62,746	86,731	72,434	36,170	7,789	5,054	3,666	1,896	2,849	16,334	30,034	387,
1955	37,850	44,103	39,902	30,658	25,931	13,498	6,732	3,540	2,434	6,882	21,834	33,863	267,
1956	31,828	28,271	55,700	70,457	65,922	28,469	7,847	4,369	3,080	3,169	15,672	29,650	344,
1957	68,638	53,288	59,565	81,651	73,596	39,950	28,434	13,632	3,559	*	*	*	422,

*Figures not available.

PERUVIAN CATCH BY SPECIES—1947-1956

(Data in kilograms, equivalent to 2.2 pounds.)

Spanish Name	English Name	Scientific Name	1948	1949	1950	1951	1952	1953	1954	1955	1956
Atun	Yellowfin Tuna	Neothunnus macropterus	2,971,526	3,317,159	12,356,010	6,502,248	4,374,707	2,282,876	5,408,356	6,782,153	3,569,927
Barrilete	Skipjack	Katsuwonus pelamis	421,253	1,370,567	426,510	1,320,018	4,574,006	4,939,224	7,649,083	7,596,896	9,556,650
Bonito y chauchilla	Bonito	Sarda chilensis	20,223,161	27,237,403	31,840,314	51,129,905	53,321,510	44,369,624	52,835,634	71,771,573	83,815,348
Pez espada	Swordfish	Xiphias gladius	262,474	365,824	6,903,472	1,491,333	2,572,690	932,261	693,657	437,825	624,487
Cojinova	Pompano	Neptumenus crasus	1,237,868	1,307,658	1,160,148	2,305,063	1,743,287	2,688,237	1,845,717	1,362,680	3,380,237
Corvina	Bluefish	Sciaena gilberti	460,636	708,562	1,064,316	666,561	757,349	824,689	4,739,923	4,427,779	2,158,581
Cabrilla	Sea bass	Paralabrax	1,260,698	1,095,653	831,765	1,263,678	1,292,298	1,737,676	1,330,862	1,322,757	2,396,326
Lorna y robalo	Drum	Sciaena	2,519,035	1,835,049	4,367,172	3,524,974	5,213,726	2,947,369	4,902,004	3,280,395	3,848,261
Cazon y tollo	Sharks	Musteles and scoliodon	1,039,478	999,549	897,023	780,053	1,570,013	2,040,341	3,999,150	2,041,263	2,624,513
Caballa	Mackerel	Pneumatophorus peruanus	814,553	1,843,073	2,267,809	1,142,963	3,311,029	1,854,236	3,542,680	1,313,787	3,736,649
Machete	Herring, shad	Ethmidium chilcae	889,844	1,528,329	6,049,536	12,883,079	8,842,560	7,601,063	9,731,548	17,624,139	19,633,322
Anchoveta	Anchovy	Engraulis ringens				6,829,052	15,950,347	37,112,658	43,028,493	58,707,006	118,726,000
Otros, mariscos	Other fish, shellfish & unclassified		3,843,355	3,651,198	5,355,754	7,262,602	9,476,701 (4)	8,446,524	6,382,478	6,668,549	13,215,197
	Total estimated by Direcc. de Pesqueria y Caza		**47,651,700**	**60,800,700**	**83,640,834**	**105,550,500**	**113,000,223**	**117,776,778**	**146,089,585**	**183,336,802**	**267,285,498**

PERUVIAN FISH CATCHES BY PRINCIPAL PORTS

(Data in kilograms, equivalent to 2.2 pounds)

	1948	1949	1950	1951	1952	1953	1954	1955	1956
Northern Zone									
Mancora	718,633	2,100,225	11,649,727	8,156,747	5,316,479	4,077,124	10,999,781	10,515,095	10,207,542
Talara	632,800	697,700	5,693,055	354,700	340,545	305,196	692,704	1,105,584	442,632
Paita	3,632,120	3,324,035	3,424,497	2,090,108	5,858,915	3,147,746	3,232,762	7,204,537	6,023,332
Sechura	2,002,872	2,101,932	2,307,393	2,342,983	4,093,275	4,438,025	4,578,440	2,950,656	4,791,231
Other ports	3,192,195	1,850,587	4,944,732	4,372,900	6,428,168	8,972,536	8,796,200	5,621,661	10,712,933
North Total	10,178,620	10,074,479	28,019,404	17,317,400	22,037,382	20,941,627	28,299,887	27,397,533	32,177,670
Central Zone									
Chimbote and Samanco	2,543,570	5,206,125	9,525,069	36,392,033	38,556,667	54,690,792	44,543,944	71,614,299	92,436,708
Huarmey and Culebras	1,032,810	1,916,214	377,700	1,530,400	1,624,893	6,830,965	4,258,237	6,969,467	11,157,054
Huacho and Carquin	1,457,066	3,734,564	5,506,000	6,766,000	10,695,455	5,502,434	14,702,931	14,602,045	18,446,202
Chancay	804,346	1,698,849	1,262,320	7,032,000	4,220,501	1,836,331	4,372,836	12,832,694	22,091,023
Callao	12,095,131	11,901,001	13,971,025	15,156,596	15,497,658	11,891,727	16,260,851	20,769.727	33,686,066
Pucusana	988,665	2,151,632	2,971,059	3,044,531	1,085,356	2,365,557	8,877,260	6,485,994	6,994,125
Other ports	2,426,605	1,592,666	4,115,190	3,519,440	4,529,204	3,352,689	8,652,222	9,176,445	29,669,232
Central Total	21,348,193	28,201,051	37,728,363	73,441,000	76,209,724	86,470,495	101,668,281	142,450,671	214,480,410
Southern Zone									
Ilo	3,877,228	6,406,553	7,147,685	5,847,249	12,516,254	9,847,629	14,878,428	11,034,336	16,698,378
Other ports	539,840	577,951	623,877	495,880	2,237,863	517,027	1,242,989	2,454,262	3,929,040
South Total	4,417,068	6,984,504	7,771,562	6,343,129	14,753,117	10,364,656	16,121,417	13,448,598	20,627,418
Grand Total — estimated by Direcc. de Pesca y Gaza	47,651,700	60,800,700	83,640,834	105,550,500	113,000,223	117,776,778	146,089,585	183,336,802	267,285,498

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Seattle Salmon Exchange Troll Salmon Prices

(In cents per pound)

1957

Week Ending	KING SALMON Large	Medium	Small	White	SILVER	Weekly Receipts (1000 lbs) KING	SILVER
May 4	47.5-53.5	44-51	38-48	36-43.5	-	87.0	-
May 11	46-53	40-47.5	36-42.5	36-38	-	100.4	-
May 18	44-49	36-41	34-38	34-38	-	149.4	-
May 25	44-49.5	36-41	34-37.5	34-37	-	124.9	-
June 1	45.5-48	36-38.5	34-35	34	-	100.5	-
June 8	42.5-49	36-39	31-35	32-37	-	223.0	-
June 15	41.5-46.5	34-39.5	31-36.3	31-34	-	106.4	-
June 22	41.5-47	34-40	29-37.8	31-36	26-28	168.4	120.1
June 29	49-49.5	37-41	32-37	34-34.5	30.5	97.4	126.3
July 6	50	39	34.5	33	28.5	70.8	173.6
July 13	46-51	36-44	29-36.5	32-37	28-34	91.2	80.1
July 20	48-52	36-39	31-34	33-35.5	30-31	157.4	108.8
July 27	45.5-51	34-36	29-31	31-33	28-30.5	111.9	167.1
August 3	46-52	34-39	29-31	31-34	28-31	118.7	165.8
August 10	45-49	34-36	28-30	31-33	28-30	87.3	131.9
August 17	45-49	34-39	28-30	31-35	28-31	115.7	204.4
August 24	45-49	34-38	28-30	31-35	28-30	151.0	198.9
August 31	48-51	34-38	28-30	31-35	28-30	36.4	79.9
September 7	48-53	34-36	28-32	31-36	28-30	111.4	120.8
September 14	46-61	34-43	28-36	31-35	28-33	24.1	53.0
September 21	49-59	37-47	27-35	33-36	32-35	36.4	104.5
September 28	44-54	34-40	28-34	31-33	33-37	21.5	35.7
October 5	54-62.5	42-50.5	37-50.5	37-50.5	36.2-53	10.8	6.7
October 12	51-71	41-47	41-47	41-44	41-45.5	3.3	14.2

1956

Week Ending	KING SALMON Large	Medium	Small	White	SILVER	Weekly Receipts (1000 lbs) KING	SILVER
May 5	41-51	-	41-45.5	36-41	-	180.7	-
May 12	49-56	41-48	36-44	36-39	-	76.8	-
May 19	47-58	41-49	38-48	36-40	-	81.3	-
May 26	46-53	41.5-48	37-48	36-42	-	71.9	-
June 2	46-52	41-49	36-44	36-40	-	102.1	-
June 9	46.5-51	41-46	36-38	36-36.5	-	99.2	-
June 16	46.5-55	41-47.5	36-47.5	36-46	-	93.9	-
June 23	47-55.5	41-45	36-38	36-42	26-34	307.2	43.1
June 30	48.5-56	41-42	36-37	39-40.5	28-33.5	185.8	102.4
July 7	51-56.5	41-47	36-37	36-41	31.5-32	79.4	151.6
July 14	52-59	41-49	36-44	37.5-46	34.5-38	175.9	149.6
July 21	51.25-61	41-53	36-44	36-46	34-39	184.4	327.8
July 28	49.5-56	41-47	36-39.5	36-41	34-38	221.4	467.4
August 4	53-60.25	41-53	36-37	36-41	33.75-37.25	143.3	369.9
August 11	53-60	40-55	35-41	36-51	34-35	189.7	394.8
August 18	51-60	41-58	36-43	49-51	37.5-39.5	100.0	281.6
August 25	54-57	41-46	36-40	34-38	34-38.5	191.4	353.2
September 1	51-57.5	41-45	36-40	44-49	34.5-37.5	141.3	360.9
September 8	56-59	41-46	36-42	49	35.5-38	44.4	152.0
September 15	56-57	41-44	36-42	49	38-39.5	56.0	106.5
September 22	52-55.5	41-44	36-38	49-51	37.5-38	81.6	322.7
September 29	51-57	41-45	36-38	49	37.75-38.5	31.1	124.9
October 6	51-61	41-45	38-39	49	39-39.75	7.8	86.8
October 13	51-61.5	41-43	36-39	49	39-41	26.7	123.8

NOTE: Prices shown above are those listed daily on the SEATTLE SALMON EXCHANGE for the dates shown.

Data compiled by U. S. MARKET NEWS SERVICE.

Pacific Canned Oysters

SEASON OF 1956 - 1957

Company	Cannery Location	Cases of 48 Cans				
		No. 1 E.O. 10-oz.	Buffet 8-oz.	No. 1 Tall	Total Cases As they run	Total Standard Cases Basis 48 No. 1 E.O.
E.H. Bendiksen Co.	South Bend, Washington	23,500	....	...	23,500	23,500
Coast Oyster Co.	South Bend, Washington	21,019	18,499	1,941	41,459	38,865
Coos Bay Farmers Cooperative	North Bend, Oregon	1,495	....	...	1,495	1,495
Hilton Seafoods Co.	Seattle, Washington	4,000	....	...	4,000	4,000
Northern Oyster Co.	Oysterville, Washington	80	80	...	160	144
Wiegardt Bros.	Ocean Park, Washington	11,887	3,898	1,111	16,896	15,894
TOTAL		61,981	22,477	3,052	87,510	83,898

PACIFIC CANNED OYSTERS, equivalent of standard cases of 48 No. 1 E.O. packed in -

		1954	100,687	1948	83,489	1942	72,315	1936	118,853
		1953	114,687	1947	57,205	1941	178,445	1935	88,062
		1952	112,415	1946	89,050	1940	148,870	1934	68,323
		1951	132,140	1945	3,184	1939	112,549	1933	32,315
1956	109,559	1950	120,742	1944	none	1938	111,348	1932	12,233
1955	124,497	1949	113,989	1943	583	1937	110,872	1931	7,930

Trend is to Stew

- Oyster canning operations evidenced a strong trend toward stew and away from canned oysters as such, continuing a shift of emphasis manifest over recent years.

Thus oyster canning declined materially from the 1955 level, which in turn was far below that of 1955; but the canning of oyster stew rose sharply for the fifth consecutive year.

As a matter of fact, the oyster stew pack of the Pacific states in 1958 — 273,000 cases — represented an increase of more than 90,000 cases from the previous record, set during the 1955-56 season.

- Consumption of fresh shucked Pacific oysters continued a steady upward trend through the 1957 marketing season, with quality of the oysters generally favorable and size selection admirable. This is a condition which has been helped materially by the rise of canned oyster stew.

Seed planting during the year was of normal character and generally well diversified. It was not as heavy as in the previous year, when the California beds were heavily planted, and when a good deal of the early seed was lost in adverse weather.

- In the Pacific Northwest oyster growers generally feel that they have mastered most of the serious problems of Pacific oyster culture, with one primary exception: *pollution.*

In that region this means the discharge of sulphite waste liquor from pulp mills into tidal waters in the vicinity of oyster beds.

Entering 1958, the Washington Department of Fisheries proposed at the invitation of the Washington State Pollution Control Commission criteria for determining the maximum amount of pollution to be tolerated in the public waters of that state.

These interim criteria for sulphite waste liquor declared "concentration shall not exceed 3 parts per million, based on the dilution of sulphite waste liquor containing 10% solids in normal sea water, beyond one-half mile from the point of discharge."

Further: discharge is prohibited of any pollutant "that may directly or indirectly cause the dissolved oxygen content beyond a quarter-mile radius from the point of discharge to be reduced below 5 parts of oxygen per million parts of water."

- Not since the times of Jack London and the oyster pirates of San Francisco Bay has there been such bustling oyster activity in the bays of California as in 1957.

Pacific Canned Oyster Stew

SEASON OF 1956 - 1957

Company	Location	Cases of 48 cans			
		No. 1 E.O. 10-oz.	Buffet 8-oz.	Total Cases As they run	Total Standard Cases Basis 48 E.O.
Coast Oyster Co.	South Bend, Washington	127,710	23,365	151,075	146,402
Hilton Seafoods Co.	Seattle, Washington	79,000	48,442	127,442	117,754
Northern Oyster Co.	Oysterville, Washington	525	....	525	525
Wiegardt Bros.	Ocean Park, Washington	8,585	27	8,612	8,607
1956-7 TOTAL CASES Oyster Stew		215,820	71,834	287,654	273,288

1955-56 Total	182,179	1953-54 Total	134,111
1954-55 Total	170,058	1952-53 Total	78,536

OYSTERS

Plantings of Imported Pacific Oyster Seed

YEAR	WASHINGTON				OREGON			California	British Columbia	TOTAL	YEA
	Willapa Harbor	Grays Harbor	North Puget Sound	South Puget Sound	Coos Bay	Yaquina and Alsea	Tillamook				
1947	22,933	5,230	6,025	4,117	8,200	. . .	7,157	750	(a) 2,292	56,704	1
1948	14,685	1,150	5,562	1,962	3,400	1,550	1,005	850	2,675	32,839	19
1949	17,357	7,425	6,429	4,748	290	1,930	2,500	350	4,844	45,873	19
1950	16,512	1,550	6,830	3,745	4,425	1,300	3,575	565	5,204	45,706	19
1951	18,569	2,250	8,685	7,119	6,749	1,500	1,274	350	(b) 5,404	51,900	19
1952	40,526	. . .	15,335	7,954	455	. . .	5,625	250	(c) 3,584	73,729	19
1953	31,669	4,900	22,583	(d)	. . .	. . .	(e) 8,810	250	1,435	69,647	19
1954	32,087	7,325	12,210	10,528	. . .	. . .	(e) 953	2,526	1,576	67,205	19
1955	30,424	846	8,132	11,273	250	176	386	9,850	(f) 1,875	63,212	19
1956	50,113	1,333	6,155	16,458	. . .	. .	(e) 1,000	24,538	3,240	102,837	19
1957	22,388	6,066	6,652	(g) 9,035	. .	.	(e) 1,143	11,200	3,382	59,866	19

(a) Includes 100 cases planted in Alaska. (b) Includes 4 cases planted in Alaska. (c) Includes 7 cases planted in Alaska.
(e) Includes all Oregon Coast points. (f) Includes 18 cases planted in Alaska. (d) Included with North Puget Sound.
(g) Includes 260 cases transshipped to Alaska.

NOTE -- Seed plantings in 1957 include 140 cases of Kumamoto seed, 93 planted in Oregon and 47 in Washington. Also imported from Japan and planted on Gray Harbor were 197 cases of clam seed.

How production has grown in recent years can be seen from the comparison of before and after figures. In 1948 only 166,000-lbs. of oysters were harvested. In 1956 6,000,000-lbs. were dredged by the rejuvenated industry which is still growing. Oysters are now being harvested from the bottoms of Humboldt, Tomales, Drakes and Morro Bays.

By far the greatest portion of this shellfish harvest comes from Eureka where 250,000-gals. of shucked meat is the goal—the result of an already planted 28,000 cases of seed oysters.

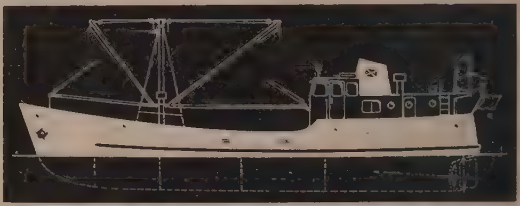
Much of the increased yield is due to the far-sighted planning of the Coast Oyster Co., Eureka, and the El Morro Oyster Co., Morro Bay. Coast introduced the hydraulic dredge to Ca fornia's oystermen, making possible take of as much as 2,000 bushels oysters during a favorable tide. T fresh, frozen, and canned products the California beds are sold all o the coast and the United States.

Over 200 people have been e ployed at full capacity state-wide the oyster industry.

1957 - Weighted Average Shellfish Prices at Seattle - 1957

SPECIES	Unit	Dec '56	Jan. '57	Feb	March	April	May	June	July	Aug	Sept.	Oct	No
CLAMS													
Butter	lbs.	$ .11	$ .12	$ .09	$ .09	$ .09	$ .09	$ ...	$ ...	...	$ ...	$ .03	$
Razor	lbs.	.	.20	.20	...	.22	...	. .	. .	...	...	..	..
Little Neck	lbs.	13	.13	.13	.13	.13	.13	. .	...	...	..	.13	
Manila	lbs.	.12	11	.11	.11	.11	.11	.11	.11	...	.11	11	
Clammeat	lbs.	..	...	...	.45	.45	...	...	...	...	...	. .	..
Crabs, Dungeness, Cooked	lbs.	.21	.18	.18	.19	.19	.19	.19	.19	...	...	.21	
Crabs, Ocean	doz.	2.05	1.95	1.95	1.95	1.95	1.95	1.95	1 95	...	2.05	...	
Crabs, Puget Sound	doz.	...	...	...	...	...	...	...	...	...	...	1.90	1
Crabmeat	lbs.	.80	.70	.70	.70	.70	.70	.75	..	...	...	85	
Octopus	lbs.	05	.05	.05	.05	.05	.05	.05	.05	...	.05	.05	
OYSTERS													
Olympia	gal.	30.00	30.00	30.00	32.00	32.00	32.00	32.00	32.00	...	32.00	32.00	32
Pacific	gal.	4.00	4.00	4.00	4.00	4.00	4.15	4.15	4 15	...	4.15	4.16	4
Coast	gal.	4.00	4.00	4.00	4.00	4.00	4.15	4.15	4.15	...	4.15	4.15	4
Shrimp, local	lbs.	...	...	...	...	.35	.35	.35	.35	..	...	35	
Squid	lbs.	.18	...	..	...	...	...	...	...	...	...	..	.

Seiner Using Puretic Power Block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1957 -PACIFIC CANNED CLAM PACK- 1957

COMPANY	Cannery Location	1-lb. Talls 48	No. 10	1/2-lb. Flat 48	Total as they run	GRAND TOTAL Basis Halves 48
RAZOR CLAMS						
Halferty Canneries, Inc.	Cordova, Alaska	..	..	27,482	27,482	27,482
" "	Kodiak, Alaska	..	...	12,653	12,653	12,653
Mohawk Packing Co.	Moclips, Wash.	.	..	3,790	3,790	3,790
Plumb & Edney	Copalis, Wash.	.	.	2,464	2,464	2,464
Shelter Cove Packing Co.	Cordova, Alaska	..	. .	78	78	78
Simon Seafoods	Kasilof, Alaska	.	. .	82	82	82
TOTAL U.S. PACK		.	...	46,549	46,549	46,549
Queen Charlotte Canners, Ltd.	Massett, B.C.	..	...	3,076	3,076	3,076
TOTAL RAZOR CLAMS		.	. .	49,625	49,625	49,625
HARDSHELL CLAMS						
Iwersen Canning Co.*	Point Roberts, Wash.	42	101	107	250	393
GRAND TOTAL, ALL CLAMS		42	101	49,732	49,875	50,018

*Also packed 351 Cases of clam nectar.

Razor Clams Hold Rank As Hardshells Decline

• Razor clams, exclusive specialty of he Pacific beaches, held their own in heir own limited field, with producion about on the average of recent ears, close to 50,000 cases, but far rom the twice-that-many level which was reached in most years prior to 1933.

On the other hand, hardshell clams continued at a low level of production, due to a variety of factors, primarily competition.

• Razor clams, with their specialized character, quality and market, held to the recent normal levels of canned pack in spite of the heavy requirements of the personal private diggers and the crab bait buyers.

Alaska furnished most of the canned pack, while Washington beaches contributed the principal part of the sport and bait catch.

Despite the market preference for razor clams, large and growing quantities of Atlantic minced sea clams are being sold on the Pacific Coast, where they have made successful and significant gains against the razor variety in its own market. Thus the population growth in the Pacific area has had its clam requirements filled in large degree through Atlantic and Asian clams.

WASHINGTON RAZOR CLAM PRODUCTION

YEAR	COPALIS BEACH (Pounds)			GRAYLAND BEACH (Pounds)			LONG BEACH (Pounds)			KALALOCK, etc.	Total Catch All Beaches
	# of Digs	Total Catch	Per Dig	# of Digs	Total Catch	Per Dig	# of Digs	Total Catch	Per Dig	Total Catch-Pounds	(Pounds)
937	20,695	546,486	26.4	9,026	285,317	31.6	2,986	99,591	33.4	46,478	997,872
938	37,064	1,366,441	36.9	20,765	882,619	42.5	9,410	364,383	38.7	44,670	2,650,355
939	23,903	846,633	35.4	11,182	433,796	38.7	11,321	653,992	57.7	30,692	1,965,113
940	25,343	604,338	23.8	13,582	347.435	25.5	25,115	1,159,123	46.1	14,886	2,125,782
941	12,389	406,393	32.8	2,643	111,819	42.3	3,307	222,129	67.2	806	741,147
eserve	7,965	347,693	43.7	...	...	...	...	...	...	..	.
942	5,088	143,148	28.1	814	26,283	32.3	3,941	174,104	44.2	*	343,535
943	5,284	164,907	31.2	1,005	24,728	24.1	799	20,627	25.8	*	210,262
944	8,485	409,374	48.2	2,705	105,425	38.9	2,651	108,030	40.7	*	622,829
945	14,519	1,124,965	77.5	5,289	512,298	96.9	4,255	418,673	98.4	1,235	2,057,171
946	12,387	922,516	74.5	10,548	461,773	43.8	11,109	663,776	59.8	*	2,048,065
947	16,681	1,164,321	58.5	6,564	305,122	46.5	9,105	544,657	59.7	*	2,014,100
948	18,263	687,612	37.6	6,642	249,869	37.6	8,489	268,862	31.8	50,350	1,256,693
949	14,496	475,649	32.8	5,412	177,227	32.7	1,220	42,169	34.5	26,686	721,731
950	11,878	231,879	26.9	...	.	.	...	. .	. .	5,303	237,182
951	14,583	700,173	48.0	...	..	...	...	...	.	...	700,173
952	17,630	651,733	37.0	...	...	...	...	...	...	39,595	691,328
953	13,203	504,050	38.1	...	..	...	724	60,267	83.2	28,863	593,180
954	8,407	550,524	63.2	...	...	...	152	11,759	77.3	35,018	597,301
955	7,859	614,061	78.1	...	...	...	224	24,666	110.0	110,682	749,409
956	10,054	416,884	41.3	...	...	...	**	92,947	**	187,028	696,859
957	9,178	521,468	56.8	...	...	...	662	79,814	120.0	155,796	757,078

OTE: - In 1950 the catch per dig was computed only on pounds sold, which equaled ,205 digs for 140,017 lbs. 91,862 lbs. of the quota were not sold and the number of igs for this unsold portion does not agree with the digs and pounds sold.

*The small amount is included with Copalis Beach
**Not available.

PACIFIC CLAM PACK IN PREVIOUS YEARS

YEAR	(Basis 48 halves per case)			
	RAZOR CLAMS			
	Alaska	Wash. & Oregon	B.C.	TOTAL
1929	28,270	63,526	13,050	104,846
1930	33,937	54,746	12,623	100,324
1931	43,460	53,412	8,658	105,440
1932	69,147	46,002	8,457	123,606
1933	38,213	38,772	....	76,985
1934	31,655	30,232	....	61,656
1935	34,864	53,057	....	87,921
1936	29,900	49,692	....	79,592
1937	29,044	20,373	....	49,417
1938	42,305	64,167	....	106,472
1939	35,258	60,205	....	95,463
1940	41,556	51,705	....	93,261
1941	22,736	27,629	....	50,365
1942	46,703	3,999	5,568	56,270
1943	48,692	1,732	5,821	56,275
1944	47,050	3,512	**	50,562
1945	43,476	38,152	**	81,628
1946	51,594	51,063	**	102,657
1947	24,726	42,970	....	67,696
1948	34,425	11,720	....	46,145
1949	42,103	4,482	923	47,518
1950	54,534	849	1,583	56,966
1951	44,082	11,014	3,196	58,292
1952	25,960	9,843	***	35,803
1953	39,234	8,449	5,183	52,866
1954	31,463	5,541	8,413	45,417
1955	45,931	10,386	....	60,117
1956	34,267	6,005	3,539	43,811
1957	40,295	6,254	3,076	49,625

YEAR	(Basis 48 halves per case)			
	HARD SHELL CLAMS			
	Alaska	Wash	B.C.	[illegible]
1929	...	19,514	21,547	[illegible]
1930	600	27,735	18,738	[illegible]
1931	2,600	19,516	18,043	[illegible]
1932	76	13,264	9,201	22,541
1933	....	22,438	20,432	45,163
1934	....	25,880	11,630	37,510
1935	....	37,249	20,418	57,667
1936	....	45,222	25,158	70,380
1937	....	45,788	25,174	70,962
1938	....	40,007	44,310	84,317
1939	....	39,165	10,862	50,027
1940	....	35,250	7,151	42,402
1941	....	22,380	6,772	29,152
1942	....	10,972	12,240	23,212
1943	2,457	2,902	11,642	§34,001
1944	11,630	19,863	**	§71,024
1945	6,029	11,752	4,693	22,474
1946	14,441	20,574	23,867	98,826
1947	323	15,301	**	15,624
1948	92	12,600	....	12,692
1949	125	16,449	9,794 ½	26,368 ½
1950	....	8,919	8,456	17,375
1951	15	13,981	15,460	29,456
1952	179	§§13,544	24,592	38,315
1953	164	§§13,281	19,249	32,694
1954	1,634	22,336	23,717	47,687
1955	14	24,755	6,780	31,549
1956	....	§22,117	**	22,117
1957	....	393	**	393

§ Total includes clams canned in California from clam meats produced in Mexico, 1700 cases in 1943, 39,531 cases in 1944, and 225,299 cases in 1945, and 39,944 cases canned in California in 1946.

§§ Includes a small amount canned in California.

* British Columbia figures for years 1932 to 1947 and 1951, 1952 and 1953 include some Razor Clams.

*** Included with Hardshell.

** British Columbia totals not available.

NOTE:- Data for current year from original sources. Data for previous years are from official sources, converted to Pacific standard cases of 48 Halves.

- With the means of determining razor clam abundance well established biologically, and digging controllable by means of annual quotas, fishery administrators in recent years have been able to maintain the razor clam populations in healthy condition by tailoring the yearly digs to the determined abundance.

- Hardshell clam canning in the Pacific Northwest dwindled almost to the vanishing point in 1957 as result of competitive factors. Not the least of these was the pressure of shucked clam meats frozen for chowder stock instead of being canned for this special outlet. Moreover, significant quantities of canned hardshell clams have been received from the Orient and Canada, cutting sharply into the market opportunities for the hardshell clams canned in the Pacific states.

Washington Eulachon Smelt Catches

YEAR	(Pounds)				
	Cowlitz River	Grays River	Lewis River	Columbia River	TOTAL
1939	1,012,730	30,300	1,342,675	184,348	2,570,053
1940	730,170	60,450	1,341,250	384,650	2,516,520
1941	1,794,233	......	376,975	42,919	2,214,127
1942	1,570,915	51,750	....	54,325	1,676,990
1943	2,973,340	3,675	270,375	124,500	3,371,790
1944	1,125,674	10,900	504,000	249,522	**1,942,771
1945	2,048,438	42,753	1,552,770	215,040	*3,891,463
1946	2,674,040	300	....	51,099	2,725,439
1947	1,192,663	......	....	128,280	1,320,943
1948	2,197,810	......	547,590	296,240	3,041,640
1949	750	250	1,940,850	387,701	2,329,551
1950	31,320	11,600	557,157	379,730	***980,832
1951	....	......	1,050	649,838	651,268'
1952	377,754	......	....	400,747	796,309'
1953	799,788	15,555	....	206,909	1,025,052'
1954	792,902	......	360,871	308,742	1,478,680'
1955	1,344,674	......	....	408,833	1,753,507
1956	575,055	......	....	397,265	1,004,870
1957	987,804	2,165	....	197,938	1,178,907

*Includes 32,462 lbs. caught in Kalama River. ***Includes 1,025 lbs. taken in Kalama River. **Includes 44,300 lbs. from Kalama River, 7,675 lbs. from Naselle River, and 700 lbs. from Nemah River. ' Total includes minor catches from the Kalama River. 16,165 lbs. in 1954; 32,550 lbs. in 1956.

OREGON CLAM LANDINGS

YEAR	Pounds												
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec	Total
1945	10,481	23,314	53,499	29,843	29,458	57,569	67,578	34,961	21,768	12,505	9,341	10,822	361,1
1946	12,150	30,471	61,310	33,600	44,313	67,755	41,399	31,983	21,130	8,883	18,237	12,519	383,7
1947	26,936	33,572	47,126	31,537	58,325	38,980	66,384	33,868	13,353	3,201	12,533	3,199	369,
1948	19,953	15,875	33,408	38,856	61,816	50,750	55,484	40,914	15,631	11,211	5,518	6,473	355,
1949	12,859	5,924	23,428	29,333	70,451	38,844	36,599	29,888	13,678	41,825	28,866	5,846	337,
1950	9,204	15,981	19,317	31,079	78,537	107,309	45,183	52,794	36,306	33,708	37,564	13,747	480,
1951	6,929	16,749	34,942	41,729	60,359	72,691	80,390	36,295	19,016	....	....	.	369,
1952	8,320	24,363	30,038	47,825	95,815	67,068	74,881	52,471	24,533	39,970	24,680	6,200	496,
1953	3,052	12,917	14,177	50,671	94,673	78,799	54,518	27,501	20,396	18,526	2,930	4,664	382,
1954	4,343	10,651	17,084	24,199	55,084	53,807	54,041	35,718	11,983	7,876	9,902	6,898	291,
1955	14,001	12,842	18,855	22,474	45,764	58,461	54,726	34,819	18,231	11,465	6,782	7,124	305,
1956	2,815	5,342	9,491	23,241	27,934	33,266	43,691	33,906	14,617	5,224	9,094	4,766	213,
1957	7,331	7,463	14,454	16,428	31,106	25,953	27,818	15,070	9,102	*	*	*	154,

*Figures not available.

AUSTRALIAN TRAWLING presently utilizes rather small craft, capable of working only the grounds in protected coastal waters. Banks of the Great Australian Bight have rich potential, attractive to large, seaworthy trawlers comparable with those working the North Atlantic.

Australia's Fisheries Development Effort Peaks in 1957-58

▸ The Australian Government is mak- ng its biggest effort in 40 years to ring about increased fisheries produc- ion.

Its objective is not as much increased ish production for its own sake as to old down rising fish imports.

Australia normally imports as much ish, frozen, canned and smoked, as produces. These imports run to about 5,000 tons a year edible weight and ost about £A6.5 million ($14.6 mil- on.)

With immigration and natural in- rease of population running at around 25,000 per year in a total population f about 10,000,000, there is heavy ressure on overseas funds for capital quipment in Australia to cope with is national expansion, as well as for imported consumer goods.

Increased fish production would at least help to hold down the annual fish import bill, despite the rapidly increasing population and consequently increasing fish consumption, but the Government also hopes to bring about increased fisheries exports of shrimp, a potential dollar-earner which Australia is already exporting to the United States.

● To finance its efforts towards increased fish production, the Australian Government established a Fisheries Development Trust Fund of $1,640,000, the proceeds of the sale to a private concern, Nor'West Whaling Company, of the Government whaling station on Babbage Island, near Carnarvon in Western Australia.

None of the Australian fund is going direct to the fishermen. In his first annual report to Parliament on the operation of the Fund, the Minister explained why. He said:

> "Owing to the number of applications for assistance from the Fund and the wide variety of suggestions made for the utilization of Fund monies for the development of fisheries, it was necessary to establish a general policy which reserves the funds for the investigation and development of ma-

NOTE — This article on Australia's Fisheries Development was prepared exclusively for the **1958 Pacific Fisherman Yearbook** by the staff of the Australian Bureau of Information.

AUSTRALIA

SPINY LOBSTERS, known domestically by the proper term "crayfish", are the present backbone of Australia's fisheries, with whole weight production in the 1956-7 season 19.5 million pounds. The fishery occupies a multitude of small, independent operators, most of them marketing through their cooperatives.

jor fishery projects, capable of making a substantial contribution to fish production in Australia and thereby increasing the existing volume of fish exports or decreasing the need for imports."

Trawling Encouraged

• Fund financed surveys of shrimp and pilchard resources off the eastern Australia coast have been proceeding this year, but the biggest developmental project is the establishment of commercial trawling in the Great Australian Bight, with the South Australian state capital of Adelaide as the base of operations.

Melbourne, the Victorian capital, with a population approaching two million, is chronically short of fresh or frozen fish and draws large supplies from Adelaide. Most of the fish trawled in the Bight will probably be consigned in the same way through Adelaide to fish hungry Melbourne.

The Bight grounds were discovered in 1912-13 by an Australian Government research trawler, *Endeavour*, which soon after was lost with all hands in a storm off Tasmania. The grounds are believed capable of yielding some 8,000 tons of fish if worked by half a dozen modern trawlers; but only large vessels, capable of fishing in all but the worst weather, and diesel or oil-fired, could operate profitably; for these distant southern fishing grounds are stormy waters and far away from steam coal sources.

It is intended therefore to purchase such a craft in the United Kingdon Meantime the project is in the stag of company formation, for it is pro posed to operate it as a business cor cern to show that profitable trawlin in the Bight is possible in the hop that private capital will then be a tracted to develop the possibilities.

Shrimp Potential Large

• The survey of shrimp resource has been proceeding since July, 195 between Brisbane and Princess Cha lotte Bay in southern and norther Queensland respectively.

Shrimp ("prawns" to Australians have been taken for many years i the brackish coastal lakes of Ne South Wales. In 1947 the first ocea shrimp grounds were discovered nea Newcastle; then rich grounds wer discovered off the northernmost wate of New South Wales near the Queens land border. The next discovery wa a prize yielding ground off Bunda berg (southern Queensland) in 195 55. Present Australian production i around 6,000,000 lb.

For the shrimp survey the Goverr ment chartered for a year a newl commissioned vessel, the 85' *Cha lenge*, the first Australian shrimp bo to freeze prawns in refrigerated brir immersion tanks. Early in the surve the vessel discovered a new 750 s mile ground off Fraser or Great Sanc Island (southern Queensland). Sin then shrimp have been taken at vario places along the Queensland coa but not in commercial quantities. Ho ever, it may well be that at oth times of the year they would be the in quantities.

Pilchard Resource Evaluated

• The first stage of the pilchard s vey was conducted between Febru and May, 1957, from Jervis Bay southern New South Wales to P Stephens, north of the coal and st city of Newcastle. Heavy concent tions of pilchards were found in vis Bay. This survey was carried also by a chartered vessel, the purse seiner *Eden Star*.

As part of the fisheries developm plan, an economic survey of the A tralian tuna industry has been car out and is under consideration. industry was born on the south c of New South Wales in 1949 w fishermen, responding to a firm p offer by canners, first began to tuna in commercial quantities by ling. The species taken is sout Bluefin (Thunnus maccoyi) whic blindfold tests of the canned pro in California, was adjudged com able with of the world's best can tunas.

The year after this first comme

na fishing in Australia, the Comonwealth came to an arrangement th the late Harold Gatty's Fijian na venture to send the clipper *Senia* to Australia to demonstrate live it pole fishing. It was found that e southern Bluefin were easily taken this technique and since then one ′ boat has been completely rebuilt a tuna clipper, another 40′ boat degned and built as such, and several aft of about the same size fitted th live bait tanks and fishing racks.

na Under Shadow

It is the Australian tuna industry's isfortune that just when the canned oduct has become well established the home market, with canners anting increased supplies of raw fish, shadow has fallen over the trade. is the shadow of low-priced Japane canned fish which the canners ar could be imported into Australia swamping quantities under the rent Australian-Japanese Trade eaty. Japanese canned fish could so seriously affect the two bread d butter lines produced by Austran fish canners: Australian "salmon" sea perch) and barracouda.

There are "escape" clauses in the ustralian-Japanese Trade Treaty and e Australian fish canners' representions were being examined when this ticle was written by the Government thorities concerned.

deral and State Authority

The Australian Government is nited in its endeavours to increase sheries production. As in the United ates, jurisdiction over fisheries is vided between the Federal (Comonwealth) Government and the six ustralian states. The states have auority over fisheries in their own aters out to the three-mile limit, d within that limit the Commonealth cannot act unless requested to so by a state. In fact, when the isheries Development Trust Fund as established, the states naturally ere slow in seeking Commonwealth sistance. At a conference with the ommonwealth in May, 1957, they reed that the projects mentioned in is article were the priority targets.

FISHING VESSELS typical of these working the south coast of New South Wales, fishing inshore of the Great Australian Bight with trawls.

Fishermen's Cooperatives

- In two Australian states in particular—New South Wales and South Australia—fishermen are highly organized on co-operative lines. Along the 800 miles of New South Wales coast, from the Queensland border to Eden adjoining Victoria, there is a string of Fishermen's Co-operatives. They operate independently of each other except when some joint interest is affected. To deal with such matters there are three Regional Associations of Co-operatives covering the northern, central and southern fishing zones respectively.

In South Australia, with less varied forms off fishing and smaller fishing ports scattered over an even longer coast, a different form of co-operative organization has arisen. Except for one other small Fishermen's Co-operative, the whole State is tightly organized in SAFCOL (South Australian Fishermen's Co-operative Ltd.), Australia's best known individual exporter of frozen lobster tails to the United States, and which also owns two canneries and the Adelaide fish market.

Knowledge of this high degree of Fishermen's Co-operative organization in Australia prompted the United Nations Food and Agriculture Organization to invite Australia to be host country to an international training centre in fisheries co-operatives and administration which was held at Sydney, capital of New South Wales, from December 16 to January 12, and at Adelaide from January 12 to January 25. The participants in the training centre were therefore enabled in a very short time to obtain experience of widely varying fisheries and fisheries co-operative conditions. F. A. O. limited enrollments to about 25, the participants being nominated by the member Governments of the Indo-Pacific Fisheries Council. The Centre Director was C. G. Setter, Commonwealth Assistant Director of Fisheries, and F. A. O.'s Associate Director was A. H. Macdonald, Director of Fisheries in Saskatchewan.

Oceanographic and geographical factors severely limit Australia's ultimate supplies of fish suitable for consumption as fresh or frozen (that is why the Bight trawling project is considered of such importance). As a result of the fishing pressure on the estuarine and on-shore fish stocks, the state governments have, for many years, been forced to impose various conservation restrictions on fishing.

School Shark Favorite Fish

- One of the main species taken for use as fresh fish is the school shark (Galeorhinus australis) and school shark fillets, sold under the name of "flake", are one of the bread and

Australian Export of Spiny Lobster

(Data in Pounds)

	1955-56		1956-57	
	Tails	Whole	Tails	Whole
S.A.	4,212,785	215,623	4,456,545	266,236
waii	175,935		165,450	
nada	7,940	...	...	9,350
gapore	11,375	78,405	5,500	39,490
rsian Gulf	..	..	1,410	...
w Guinea	...	640	100	6,107
her	3,225	13	343	200
Total	4,411,260	294,681	4,629,348	321,383

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Transmission Engineers FOR OVER HALF A CENTURY

butter lines in the Melbourne fish ma
ket. After several years' discussio
with the shark fishing states (Victori
South Australia, Tasmania, and Ne
South Wales), the Commonweal
joined them this year in prohibiti
the catching of school shark duri
the whole of November. This is to
an annual closure until the scho
shark stock shows signs of recoveri
from the intense fishing to which
has been subject since the shark boa
began to be fitted with echo-sounde
and larger craft were built to explo
the most distant grounds.

Australia's Potential High

- Shrimp producing possibilities
Australia seem exceptionally large
populations are disclosed on lo
stretches of coastline. Observers a
of the opinion that within a few yea
the Australia shipments to the Unit
States market will rank with the lar
est, Mexico's alone excluded.

In order to increase further Au
tralia's rapidly rising exports of shri
to the United States, the Departme
of Primary Industry will underta
a survey of the prawn grounds off t
Northeastern coast of Australia. T
survey is expected to locate many be
presently untouched, thus permitti
an expansion of this potentially val
able export trade.

In 1955/56, 100,000 pounds
shrimp (prawn) were exported, mai
ly to the United States. During t
first 6½ months of 1956/57, expo
reached 206,000 pounds and we
valued at £A60,000 (US $134,00
At present, however, only a small p
tion of the probable prawn grou
are being fished. An officer of
Fisheries Division of the Departm
of Primary Industry states that shri
have been found along the east
coast of Northern New South Wa
north and west all the way to Java
that the survey is expected to loc
commercially-useful beds through
the length of the Queensland Co
The presently known beds (off No
ern New South Wales and South
Queensland) are being heavily fis

The survey will be undertaken
the Fisheries Division of the Dep
ment of Primary Industry and wil
financed from the Fisheries Deve
ment Trust Fund. This fund was
tablished from the sale of the as
of the Government Whaling Com
sion.

A separate survey of the fis
prospects in the Great Austr
Bight, off the southern coast of
tralia will also be undertaken.
financed from the Fisheries Dev
ment Fund, it is hoped that this
vey will make available better sup
of fresh and frozen fish.

1957 Halibut Paradox:

Less Fish in More Time

Longer season, but shorter catch.

That in five words is the story of e 1957 North Pacific halibut season. Not since 1945 has the season run r so long a period. Despite that fact, e catch was down more than 5.25 illion pounds from the year before. Why? Were the fish scarce?

They were not abundant, nor easy catch; and that was particularly ue in the Westward grounds after e first two trips of the season. However, there was no actual scarcity; but ertainly 1957 did not at any time proide as good fishing as did 1956.

Again, economic and competitive onsiderations reacted against a full eet fishing hard. The market was efinitely not attractive; and the charr demand for salmon cannery tender rvice was good. It was a Pink Year n Puget Sound, and some of the boats witched to nets.

Another factor, particularly with respect to the Area 3 fishing, was the lack of interest of the Westward fleet in the seasonal set-up, particularly after fishing dragged along so late.

Fall weather conditions in Area 3B are not such as to attract any but the hardiest fishermen.

Stay-in-Port Stretched

● Prime factor in extending the fishing season in 1957 beyond that of 1956 was the addition of a day to make the voluntary stay-in-port period prescribed by the fleet for all vessels eight days in 1957.

Inasmuch as under any conditions it takes a vessel at least three days to sell, discharge, clean-up, outfit, take ice and get to sea, the 1957 net extension of the fishing period, which was in fact an effort to get better prices by spreading the catch over a greater sales season, amounted to about 4.75 days per trip.

Canadians Gain Again

● The Canadian halibut fleet resumed its upward march in percentage of catch in 1957 after having permitted its share to dip in the three preceding seasons.

Thus the Canadian fishermen took 40.3% of the total North Pacific halibut catch, getting 46.3% of the local halibut and 34.7% of the Area 3 take.

Market Is Disappointing

● Market prices were generally disappointing to the fleet—and particularly so during the early part of the season. After the first flush, which of itself wasn't specially rosy, the price

Annual Catches of Halibut by Areas and Seasons

	*FIRST SEASON	SECOND SEASON	THIRD SEASON	INCIDENTAL PERMIT	TOTAL
REA 1-A - SOUTH OF HECETA HEAD					
1954	411,000	..	..	7,000	418,000
1955	402,000	..	...	23,000	425,000
1956	430,000	. .	. .		430,000
1957	271,000	..	..		271,000
REA 1-B - HECETA HEAD TO WILLAPA BAY					
1954	100,000	58,000	..	39,000	197,000
1955	122,000	.	..	90,000	212,000
1956	132,000	..	...	42,000	174,000
1957	61,000	21,000	...	54,000	136,000
REA 2 - WILLAPA BAY TO CAPE SPENCER					
1954	26,497,000	9,527,000	. .	776,000	36,800,000
1955	22,203,000	5,302,000	.	1,156,000	28,661,000
1956	27,230,000	7,600,000	..	581,000	35,411,000
1957	26,105,000	4,378,000	..	686,000	31,169,000
REA 3-A - CAPE SPENCER TO SHUMAGIN ISLAND					
1954***	29,420,000	3,340,000	...	8,000	32,768,000
1955	27,399,000	1,458,000	...	. .	28,857,000
1956	29,314,000	1,486,000	...	..	30,800,000
1957	29,267,000	§	...	. .	29,267,000
REA 3-B - WEST OF SHUMAGIN ISLAND					
1954***	....	...	611,000	...	611,000
1955	....	...	933,000	...	933,000
1956	292,000	134,000	264,000	...	690,000
1957	1,384,000	§	§	...	1,384,000

ncludes poundage caught in contravention of the regulations of all seasons of the year
** Sanak Island westward in 1954

**Area extended west to Sanak Is. in 1954. Figures in pounds.
§ No Second or Third Season in 1957.

Pacific Halibut Catch by Areas and Nationalities.

YEAR	Pounds									
	AREA 1	AREA 2**			AREA 3**			TOTAL American	TOTAL Canadian	GRAND TOTAL
	American	American	Canadian	Total	American	Canadian	Total			
1932	902,271	16,026,631	5,960,640	21,987,271	21,146,037	451,761	21,597,798	38,074,939	6,412,401	44,487,340
1933	722,254	14,880,259	7,649,400	22,529,659	22,887,941	637,672	23,525,013	38,490,454	8,286,472	46,776,926
1934	1,541,258	13,360,103	9,004,714	22,364,817	22,829,989	726,658	23,556,648	37,731,350	9,731,372	47,462,722
1935	*1,489,294	13,112,709	8,954,740	22,067,449	22,532,977	1,251,314	23,784,291	37,134,980	10,206,054	47,341,034
1936	708,301	13,865,731	8,696,865	22,562,596	23,717,665	1,887,788	25,605,453	38,291,697	10,584,653	48,876,350
1937	709,752	13,445,575	9,852,348	23,297,923	23,551,917	1,912,966	25,464,883	37,707,244	11,765,314	49,472,558
1938	706,316	13,737,819	9,571,461	23,309,280	22,820,005	2,623,208	25,443,213	37,264,140	12,194,669	49,458,809
1939	1,072,675	13,466,002	10,913,035	24,379,037	22,761,120	2,552,125	25,313,245	37,299,797	13,465,160	50,764,957
1940	779,036	14,395,547	11,101,558	25,497,105	25,396,243	1,582,314	26,978,557	40,570,826	12,683,872	53,254,698
1941	332,259	13,332,247	10,609,166	23,941,413	25,590,281	2,350,333	27,940,614	39,254,787	12,959,499	52,214,286
1942	285,621	14,046,982	9,147,146	23,194,128	24,903,636	2,054,745	26,958,381	39,236,239	11,201,891	50,438,130
1943	419,944	13,740,543	11,116,583	24,857,126	26,569,949	1,790,540	28,360,489	40,730,436	12,907,123	53,637,559
1944	318,689	14,957,704	11,149,714	26,107,418	24,782,581	2,190,459	26,973,040	40,058,974	13,340,173	53,399,147
1945	529,000	13,230,000	11,750,000	24,980,000	25,605,000	3,551,000	29,156,000	39,364,000	15,301,000	54,665,000
1946	605,000	14,068,000	14,451,000	28,519,000	27,067,000	4,058,000	31,125,000	41,740,000	18,509,000	60,249,000
1947	406,000	10,387,000	17,175,000	27,562,000	20,869,000	7,081,000	27,950,000	31,662,000	24,256,000	55,918,000
1948	283,000	13,273,000	14,203,000	27,476,000	23,276,000	4,453,000	27,729,000	36,832,000	18,656,000	55,488,000
1949	426,000	12,461,000	13,588,000	26,049,000	23,433,000	5,158,000	28,591,000	36,320,000	18,746,000	55,066,000
1950	335,000	12,594,000	14,115,000	26,709,000	25,413,000	4,769,000	30,182,000	38,399,000	18,884,000	57,283,000
1951	314,000	14,426,000	16,191,000	30,617,000	20,318,000	4,829,000	25,147,000	35,058,000	21,020,000	56,078,000
1952	391,000	13,355,000	17,133,000	30,488,000	23,868,000	7,586,000	31,454,000	37,614,000	24,719,000	62,333,000
1953	238,000	14,442,000	18,060,000	32,502,000	19,447,000	7,678,000	27,125,000	34,127,000	25,738,000	59,865,000
1954	674,000	19,165,000	17,574,000	36,739,000	23,841,000	9,952,000	33,793,000	43,680,000	27,526,000	71,206,000
1955	650,000	15,717,000	13,027,000	28,744,000	20,595,000	9,121,000	29,716,000	36,962,000	22,148,000	59,110,000
1956	604,000	20,291,000	15,121,000	35,412,000	21,014,000	10,475,000	31,489,000	41,909,000	25,596,000	67,505,000
1957	407,000	16,741,000	14,428,000	31,169,000	20,027,000	10,624,000	30,651,000	37,175,000	25,052,000	62,227,000

NOTE: 1957 figures of the International Pacific Halibut Commission are preliminary and subject to further correction. In data for 1951 and thereafter Area 1 includes the catches from Areas 1A and 1B and Area 2 includes the catches from Areas 2A, 2B and 2C. In data for 1952 and thereafter Area 3 includes the catches from Areas 3A and 3B.

**Figures for Area 2 for 1937 and thereafter include halibut which were taken incidentally to cod fishing after the closure of Area 2, as allowed by regulations of the International Fisheries Commission for these years. Halibut so caugh in 1957 was 686,000 lbs., all taken in Area 2.

*This figure includes landings from Areas 1 and 4, as defined in the regulati for 1935. This amount should compare directly with the Area 1 catch of pr vious years, as it is not believed any fish were landed in 1935 from that porti of Area 4 which included Bering Sea.

PACIFIC HALIBUT CATCH SINCE 1914

YEAR	Pounds									
	AMERICAN VESSELS					CANADIAN VESSELS				GRAND TOTAL
	Seattle *	Prince Rupert **	Alaska	Oregon & California ***	Total American	Pr. Rupert, Butedale, etc.	Vancouver New Westm., Vanc. I., Namu	American Ports	Total Canadian	
1914	41,825,575	1,877,000	5,175,993	...	48,878,568	8,742,100	4,991,500	...	13,733,600	62,612,168
1915	33,133,313	11,323,500	5,561,577	...	50,018,390	8,444,715	4,791,000	...	13,235,715	63,254,105
1916	20,259,446	13,810,895	6,961,628	...	41,031,969	6,710,500	5,258,000	...	11,968,500	53,000,469
1917	22,884,434	14,216,030	6,792,138	...	43,892,602	5,839,030	3,686,000	...	9,525,030	53,417,632
1918	16,455,564	10,790,500	6,076,500	...	33,322,564	4,338,000	1,552,000	...	5,890,000	39,212,564
1919	16,968,639	13,000,700	7,366,991	...	37,336,330	6,120,000	1,957,000	...	8,077,000	45,413,330
1920	19,692,915	14,676,400	8,035,000	...	42,404,315	7,190,000	2,010,600	...	9,200,600	51,604,915
1921	17,127,783	19,531,400	8,784,029	...	45,443,212	8,906,000	4,149,400	...	13,055,400	58,498,612
1922	14,602,780	17,248,900	4,772,038	...	36,623,718	8,510,000	3,559,500	...	12,069,500	48,693,218
1923	12,017,312	20,366,600	8,283,590	...	40,667,502	9,392,900	3,707,200	...	13,100,100	53,767,602
1924	11,889,080	20,913,200	12,663,776	...	45,466,056	8,181,500	4,043,500	...	12,225,000	57,691,056
1925	11,197,474	22,434,800	9,752,465	400,000	43,784,739	6,181,600	3,207,600	...	9,389,200	53,169,939
1926	10,156,630	20,483,800	14,011,005	600,000	45,252,435	6,869,200	4,156,500	...	11,025,700	56,278,135
1927	11,917,150	18,664,400	15,386,766	400,000	46,818,316	6,941,000	1,523,400	...	8,464,400	55,282,716
1928	13,788,775	20,389,700	9,623,700	760,000	44,562,175	8,349,500	1,541,500	...	9,891,000	54,453,175
1929	12,359,170	20,599,200	12,882,426	1,103,888	46,890,984	8,045,100	1,747,800	...	9,792,900	56,683,884
1930	12,671,470	16,997,800	11,389,756	930,000	41,989,832	7,006,600	1,475,200	...	8,481,800	50,471,632
1931	15,087,672	10,573,300	9,638,150	953,000	36,252,122	6,202,400	1,424,800	...	7,627,200	43,879,322
1932	22,000,296	10,633,800	4,568,829	1,050,000	38,253,025	4,227,700	2,023,200	...	6,250,900	44,503,925
1933	22,263,992	8,757,300	6,781,451	679,066	38,461,454	5,649,200	2,630,700	...	8,300,255	46,761,709
1934	20,718,328	8,591,983	7,132,059	1,288,980	37,731,350	7,946,499	1,784,873	...	9,731,372	47,462,722
1935	22,388,941	6,927,014	6,538,114	1,280,911	37,134,980	7,636,694	2,563,276	...	10,206,054	47,341,034
1936	22,726,642	6,204,645	8,654,364	706,646	38,291,697	8,111,472	2,468,936	...	10,584,653	48,876,350
1937	21,351,684	7,017,857	8,646,993	690,710	37,707,244	9,032,623	2,711,562	...	11,765,314	49,472,558
1938	20,995,966	7,324,178	8,220,752	704,734	37,264,140	8,617,890	3,384,569	192,210	12,194,669	49,458,809
1939	20,070,259	9,319,026	6,897,208	1,013,304	37,299,797	9,904,372	3,466,362	94,428	13,465,162	50,764,957
1940	18,863,872	11,210,740	9,481,893	1,014,321	40,570,826	9,323,133	3,355,516	5,223	12,683,872	53,254,698
1941	19,095,973	10,036,640	8,998,580	1,123,594	39,254,787	8,708,902	4,173,967	76,630	12,959,499	52,214,286
1942	14,865,306	13,430,294	10,169,162	771,477	39,236,239	5,997,895	5,203,996	65,680	11,201,891	50,438,130
1943	13,278,341	12,309,595	14,096,356	1,046,144	40,730,436	6,281,348	6,487,010	138,765	12,907,123	53,637,559
1944	11,881,680	5,444,672	21,853,111	879,511	40,058,974	8,458,974	4,823,502	59,211	13,340,173	53,399,147
1945	12,651,000	4,571,000	21,049,000	1,093,000	39,364,000	11,606,000	3,503,000	192,000	15,301,000	54,665,000
1946	13,932,000	4,384,000	22,502,000	928,000	41,740,000	15,117,000	2,919,000	473,000	18,509,000	60,249,000
1947	5,816,000	2,585,000	22,422,000	841,000	31,664,000	17,868,000	6,117,000	270,000	24,255,000	55,919,000
1948	9,941,000	2,479,000	23,790,000	621,000	36,831,000	13,665,000	4,813,000	179,000	18,657,000	55,488,000
1949	10,017,000	4,205,000	21,473,000	625,000	36,320,000	13,745,000	4,318,000	683,000	18,746,000	55,066,000
1950	8,663,000	3,683,000	25,265,000	788,000	38,399,000	15,237,000	3,577,000	70,000	18,884,000	57,283,000
1951	11,100,000	4,389,000	19,034,000	535,000	35,058,000	15,717,000	4,742,000	561,000	21,020,000	56,078,000
1952	13,152,000	3,037,000	20,862,000	563,000	37,614,000	19,275,000	4,315,000	1,129,000	24,719,000	62,333,000
1953	14,598,000	2,020,000	17,033,000	476,000	34,127,000	18,351,000	6,296,000	1,019,000	25,738,000	59,865,000
1954	17,626,000	4,224,000	20,769,000	1,061,000	43,680,000	15,324,000	9,916,000	2,286,000	27,526,000	71,206,000
1955	16,269,000	2,751,000	17,205,000	737,000	36,962,000	12,393,000	7,458,000	2,297,000	22,148,000	59,110,000
1956	16,148,000	3,001,000	21,988,000	772,000	41,909,000	13,465,000	9,452,000	2,679,000	25,596,000	67,505,000
1957	15,902,000	1,861,000	18,866,000	546,000	37,175,000	14,942,000	7,670,000	2,440,000	25,052,000	62,227,000

NOTE.- 1957 figures of the International Pacific Halibut Commission are preliminary and subject to further correction.

* Includes the very small amount of fish landed at Neah Bay, Everett and elsewhere on Puget Sound.

** Includes the fish occasionally landed by American vessels at o Canadian ports.

*** Landings in Oregon and California not segregated prior to 192

1957- PACIFIC HALIBUT CATCH-AREAS 2 and 3 by Months

Pounds

MONTH	AREA 2*			AREA 3*			TOTAL		
	U. S.	Canada	Total**	U. S.	Canada	Total**	U. S.	Canada	Total**
ay	8,454,000	7,655,000	16,109,000	4,634,000	859,000	5,493,000	13,088,000	8,514,000	21,602,000
une	5,209,000	4,662,000	9,871,000	5,213,000	2,256,000	7,469,000	10,422,000	6,918,000	17,340,000
ly	316,000	153,000	469,000	5,354,000	4,321,000	9,675,000	5,670,000	4,474,000	10,144,000
ugust	2,377,000	1,905,000	4,282,000	2,743,000	1,690,000	4,433,000	5,120,000	3,595,000	8,715,000
ptember	200,000	26,000	226,000	1,777,000	1,292,000	3,069,000	1,977,000	1,318,000	3,295,000
ctober	174,000	26,000	200,000	306,000	206,000	512,000	480,000	232,000	712,000
ovember	11,000	1,000	12,000	....	....	....	11,000	1,000	12,000
OTALS	16,741,000	14,428,000	31,169,000	20,027,000	10,624,000	30,651,000	36,768,000	25,052,000	61,820,000

Area 2 includes all grounds between Willapa Bay and Cape Spencer and rea 3 all grounds west of Cape Spencer including the present Areas 3A nd 3B.

*These totals include 686,000 lbs. of halibut which were taken incidentally to blackcod fishing in Area 2, as allowed by the 1957 Regulations of the International Pacific Halibut Commission.

This table does not include the partially estimated amount of 407,000 lbs. landed from Areas 1A and 1B

lipped off and for the balance of May veraged below 20c.

There was a sharp upturn during he first part of June, with No. 1 selling as high as 23.6c per lb., and down o 18c.

Season average prices for halibut on he Seattle market in the past four ears worked out thus:

Year	No. 1 (cents)	No. 2 (cents)
1954	20.4	18.2
1955	17.7	14.9
1956	26.9	23.2
1957	21.5	18.2

Weekly price ranges for the two commercial grades of halibut on the eattle market during the 1957 season, with weekly landings were:

Week Ending	No. 1 (cents)	No. 2 (cents)	1,000s of Lbs.
May			
11 ..	19.4 -20.25	16.5 -19	484.0
18	19.25-21.75	15.0 -18.25	3,046.3
25	18.62-21	15.0 -17.5	1,606.0
June			
1	18.88-24.38	16.0 -20.0	384.0
8 ..	19.0 -22.68	18.0 -21.0	683.5
15	21.5 -25.68	18.0 -21.12	1,134.5
22	19.75-24.0	17.0 -21.0	1,624.9
29	22.0 -26.0	19.0 -21.75	460.1
July			
6	21.12-27.0	19.0 -20.25	540.1
13	25.62-28.75	20.0 -20.5	299.1
20	22.5 -28.75	19.5 -21.0	1,052.2
27 ...	23.0 -25.12	19.0 -20.0	500.5
Aug.			
3	22.5 -25.38	19.0 -20.12	331.0
10 ..	18.12-25.88	16.0 -20.0	1,307.0
17 .	21.12-23.88	19.0 -20.0	498.0
24 .	20.0 -26.0	18.0 -19.0	409.3
31	19.12-24.0	17.0 -19.5	354.8
Sept.			
7	21.0 -31.0	19.0 -20.0	148.1
14 . .	26.0 -35.0	20.0 -23.0	126.5
21 .	25.0 -30.12	20.0 -25.12	155.7
28	20.0 -28.5	18.5 -20.12	448.3
Oct.			
5	21.0 -31.0	18.0 -22.5	329.7

• Longest Westward fishing period since 1945 marked the Area 3A halibut season of 1957, which ran for 144 days. In 1945 fishing continued for 147 days.

Prior to 1955 the Area 3A season had grown progressively shorter, but since that year the time to take the quota has been gradually extending. Reasons for this condition are generally attributed to (1) decline in the number of vessels fishing in Area 3A throughout the year; (2) labor-owner-management disputes; (3) voluntary stay-in-port programs adopted by the fleet to protract the period of landing in an effort to support the market; (4) labor conditions.

To these realistically must be added

SIZE OF HALIBUT FLEET

(INCLUDES REGULAR HALIBUT BOATS ONLY)

YEAR	UNITED STATES FLEET				CANADIAN FLEET				COMBINED FLEETS			
	Area 2	Area 2	Area 3	Area 3	Area 2	Area 2	Area 3	Area 3	Area 2	Area 2	Area 3	Area 3
	No of Boats	No. of Men	No. of Boats	No. of Men	No. of Boats	No. of Men	No of Boats	No of Men	No of Boats	No of Men	No of Boats	No. of Men
943	247	1,037	107	942	162	767	3	24	409	1,804	110	966
944	278	1,056	84	753	278	831	4	34	485	1,887	88	767
945	316	1,253	97	837	175	867	3	26	491	2,120	100	863
946	373	1,373	116	921	187	952	5	41	560	2 325	121	962
947	350	1,302	119	887	215	1,168	5	40	565	2,470	124	927
948	403	1,496	139	1,095	249	1,221	5	39	652	2,717	144	1,134
949	374	1,452	149	1,134	225	1,153	5	41	599	2,605	154	1 175
950	426	1,654	150	1 147	235	1,210	5	39	661	2,864	155	1,186
951	394	1,574	148	1,091	270	1,346	8	66	664	2,920	156	1,156
952	295	1,243	134	885	233	1,211	8	64	528	2,454	142	949
953	273	1,147	139	883	229	1,151	20	159	502	2,298	159	1,042
954	289	1,238	121	720	224	1 149	20	167	513	2 387	141	887
955	281	1,209	122	698	189	959	25	203	470	2 168	147	901
956	285	1,213	99	548	155	829	17	134	440	2,042	116	682
957	351	1,402	110	595	171	859	27	206	522	2,261	137	801

Holdings of Frozen Halibut in Canada by Months

(Pounds)

ear	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
943	5,033,262	4,320,016	3,662,970	2,023,376	1,678,527	3,113,646	4,822,529	4,874,661	4,971,853	3,715,845	4,136,536	3,494,191	1943
944	2,503,628	2,039,395	1,507,225	1,097,699	792,549	728,024	3,905,781	6,675,093	6,368,948	6,354,092	5,392,449	4,861,059	1944
945	4,222,080	2,970,513	2,605,945	1,596,132	1,193,618	4,430,285	7,065,500	6,462,794	6,146,324	5,305,732	4,538,808	2,874,540	1945
946	2,348,945	1,472,192	1,188,634	717,256	237,978	5,499,251	9,561,055	9,260,311	9,366,369	8,076,480	7,067,600	6,298,440	1946
947	5,479,805	4,176,190	3,592,122	2,680,602	1,282,144	7,140,603	10,209,201	11,994,470	13,411,286	11,517,561	9,836,666	9,080,400	1947
48	8,296,000	6,613,000	5,254,000	3,348,000	2,312,000	9,108,000	10,717,000	11,216,000	9,362,000	8,610,000	7,418,000	5,687,000	1948
949	4,749,000	3,949,000	2,867,000	1,017,000	445,000	7,972,000	9,959,000	11,957,000	10,972,000	9,523,000	8,463,000	6,781,000	1949
950	5,346,000	3,250,000	2,162,000	1,116,000	689,000	7,329,000	10,755,000	11,273,000	10,428,000	8,475,000	8,429,000	7,020,000	1950
951	6,450,000	5,398,000	4,349,000	2,725,000	2,433,000	13,198,000	14,452,000	13,550,000	13,445,000	12,883,000	10,791,000	9,212,000	1951
52	7,433,000	5,098,000	3,747,000	2,367,000	1,449,000	7,662,000	12,129,000	13,420,000	12,544,000	12,569,000	10,439,000	8,077,000	1952
953	7,812,000	5,451,000	3,812,000	2,464,000	1,511,000	7,504,000	16,583,000	15,434,000	17,065,000	14,758,000	12,394,000	11,443,000	1953
954	10,082,000	7,696,000	5,882,000	3,604,000	1,728,000	6,912,000	11,353,000	12,935,000	14,772,000	13,619,000	12,145,000	11,691,000	1954
955	10,422,000	8,965,000	7,376,000	5,034,000	3,274,000	7,682,000	10,198,000	11,716,000	12,518,000	11,276,000	9,914,000	8,308,000	1955
56	6,723,000	4,895,000	3,089,000	1,904,000	1,111,000	2,573,000	10,904,000	10,255,000	11,359,000	15,195,000	10,745,000	9,795,000	1956
57	9,168,000	8,763,000	7,196,000	4,796,000	3,716,000	8,881,000	18,546,000	13,643,000	13,675,000	13,275,000	*	*	1957

OTE - All figures in accordance with latest reports. *Data not available. Source: Dominion Bureau of Statistics - Ottawa, Canada.

HALIBUT

1957 -Seattle Halibut Fleet Landings by Months- 1957

MONTHS	Trips	HALIBUT NO. 1		HALIBUT NO. 2		LINGCOD		ROCKFISH		SABLEFISH		TOTAL	
		Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Dec. 1956	3	. .	$.	28,100	7,700	28,500	$ 3,600	...	$ ...	..	$ ...	56,600	$ 11,300
January, 1957	3	16,700	4,500	25,800	6,300	13,600	1,600	..	...	...	..	56,100	12,400
February	1	. .	...	...	...	11,600	1,100	...	...	...	. .	11,600	1,100
March	...	...	...	...	...	...	...	...	...	...	...	...	..
April		.	...	...	. .	...	...	...	...	. .	...	...	
May	131	3,089,900	609,900	1,698,900	268,400	17,900	.900	9,400	500	13,000	1,700	4,829,100	881,400
June	99	2,081,900	458,300	1,283,800	245,700	14,200	700	9,100	500	36,000	5,900	3,425,000	711,100
July	75	1,236,000	297,300	1,141,100	228,200	...	...	12,000	600	173,200	26,200	2,562,300	552,300
August	100	1,460,800	311,300	1,131,300	202,700	13,000	700	21,500	1,000	352,900	53,800	2,979,500	569,500
September	81	479,300	116,700	435,500	87,100	4,600	200	19,900	1,000	845,300	126,900	1,784,600	331,900
October	82	228,100	59,800	186,500	37,700	8,600	400	35,600	1,800	1,105,000	151,600	1,563,800	251,300
November	.	..	...	...	...	...	...	...	...	...	...	...	
Total	575	8,592,700	1,857,800	5,931,000	1,083,800	112,000	9,200	107,500	5,400	2,525,400	366,100	17,268,600	3,322,300
1956 Total	487	7,917,100	2,144,700	5,581,300	1,274,800	151,100	15,800	96,300	5,300	1,159,700	251,900	14,905,500	3,692,500
1955 Total	593	7,782,525	1,379,049	5,972,429	890,116	96,806	8,326	161,870	7,915	2,190,376	307,801	16,204,006	2,593,207
1954 Total	590	9,680,975	1,969,571	6,305,330	1,149,601	137,381	14,177	158,442	8,017	2,224,123	341,184	18,506,251	3,482,704
1953 Total	486	8,072,514	1,457,140	4,912,713	787,245	85,126	8,441	137,648	6,703	1,902,412	285,891	15,110,413	2,545,420
1952 Total	527	6,613,702	1,544,979	4,685,046	1,018,696	522,490	73,791	181,359	9,757	1,597,801	240,853	13,600,398	2,888,076
1951 Total	485	6,011,835	1,362,710	3,628,699	740,182	279,953	39,354	244,289	16,453	2,004,053	265,082	12,168,829	2,423,781
1950 Total	371	4,461,658	1,237,069	2,921,919	730,756	363,641	32,974	152,139	8,052	1,090,129	196,838	8,989,486	2,204,577
1949 Total	473	4,953,126	1,119,834	4,166,069	797,911	418,202	39,457	192,544	12,894	1,813,775	177,709	11,543,370	2,147,796
1948 Total	461	4,990,417	1,136,824	4,089,321	742,761	491,683	53,744	229,698	14,387	1,372,309	227,947	11,200,428	2,175,663
1947 Total	302	3,705,948	972,481	1,887,355	423,403	301,745	31,630	165,098	12,149	1,378,694	179,151	7,438,840	1,619,199
1946 Total	458	6,823,696	1,509,839	6,299,384	1,286,742	261,803	23,787	218,598	14,136	1,358,433	199,832	14,961,914	3,034,336
1945 Total	459	6,547,387	1,148,683	5,376,141	2,008,265	893,283	86,952	287,623	24,030	572,376	65,816	13,676,821	2,185,062

another, less positive, but still a definite possibility; that *a catch of 30 million pounds may be more than the Area 3A fishery can sustain from year to year without impairment of the stock..*

Prior to 1957, Areas 3A and 3B opened and closed at the same time, with and extra season in Area 3B. As compared with the regular season of 144 days in Area 3A in 1957; the 3A and 3B areas were open for 104 days in 1956; 81 days in 1955; 58 days in 1954; 52 days for the all-time record in 1953; 60 days in 1952; 56 days in 1951; 66 days in 1950; 73 days in 1949; 72 days in 1948.

- Official opening date for all halibut fishing in 1957 was May 1. The United States fleet sailed in time to start fishing with the season, but the Canadians did not sail until May 3, losing about five days of fishing, because of labor-owned-management dispute over fringe benefits and "lay" apportionment.

In 1955 and 1956 the official opening date was May 12, but in 1956 both fleets agreed to delay actual fishing until May 20 in an effort to support the market.

- Obvious desire of the Internationa Halibut Commission to encourag fishing in Area 4, Bering Sea and th waters south of the Aleutians, wen largely unsatisfied in 1957. In its original proposals for the season the commision obviously sought by its seasonal program to attract the fleet int this area from which the stocks i

OREGON AND CALIFORNIA HALIBUT LANDINGS

1957

MONTH	California Pounds	Oregon Pounds
May	25,000	144,000
June	36,000	134,000
July	15,000	41,000
August	15,000	75,000
September	10,000	25,000
October	10,000	16,000
November	...	...
TOTAL	111,000	435,000

NOTE:- 1957 figures of the International Pacific Halibut Commission are preliminary and subject to further correction, particularly California's which include some estimation.

PERCENTAGE DIVISIONS OF CATCH BETWEEN FLEETS

YEAR	CANADIAN			AMERICAN			YEAR
	Area 2	Area 3	All Areas	Area 2	Area 3	All Areas	
1957	46.3	34.7	40.3	53.7	65.3	59.7	19
1956	42.6	33.5	38.1	57.4	66.5	61.9	19
1955	45.5	30.8	37.6	54.5	69.2	62.4	19
1954	47.6	29.9	38.9	52.4	70.1	61.1	19
1953	55.8	28.0	42.9	44.2	72.0	57.1	19
1952	56.1	24.2	39.6	43.9	75.8	60.4	19
1951	53.9	19.6	38.0	46.1	80.4	62.0	19
1950	52.7	15.6	32.8	47.3	84.4	67.2	19
1949	51.4	17.9	33.7	48.6	82.1	66.3	19
1948	51.7	18.0	33.6	48.3	82.0	66.4	19
1947	62.3	25.3	43.7	37.7	74.6	56.3	19
1946	50.7	13.0	30.7	49.3	87.0	69.3	19
1945	47.0	12.2	28.0	53.0	87.8	72.0	19
1944	42.7	8.2	25.0	57.3	91.8	75.0	1
1943	44.5	5.8	24.1	55.5	94.2	75.9	1
1942	39.0	7.7	22.2	61.0	92.3	77.8	1
1941	44.2	8.4	24.7	55.8	91.6	75.3	1
1940	43.5	5.9	23.8	56.5	94.1	76.2	1
1939	44.8	10.0	26.5	55.2	90.0	73.5	1
1938	41.3	10.4	24.7	58.7	89.6	75.3	1
1937	42.6	7.5	23.8	57.4	92.5	76.2	1
1936	38.8	7.0	21.7	61.2	93.0	78.3	1
1935	40.8	5.3	21.3	59.2	94.7	78.7	1
1934	40.2	3.0	20.5	59.8	97.0	79.5	1
1933	33.9	2.7	17.7	66.1	97.3	82.3	1
1932	27.1	2.0	14.4	72.9	98.0	85.6	1

1957-Halibut Arrivals at British Columbia Ports-1957

(Pounds)

MONTH	Prince Rupert Butedale §	Vancouver Namu	District No. 3 and Victoria	Total Canadian Vessels	U.S. Vessels at Prince Rupert	GRAND TOTAL
May	5,011,000	1,970,000	1,148,000	8,129,000	570,000	8,699,000
June	4,361,000	1,998,000	203,000	6,562,000	496,000	7,058,000
July	2,240,000	1,311,000	46,000	3,597,000	488,000	4,085,000
August	2,283,000	698,000	35,000	3,016,000	279,000	3,295,000
September	1,039,000	8,000	28,000	1,075,000	28,000	1,103,000
October	7,000	222,000	3,000	232,000	...	232,000
November	1,000	...	...	1,000	...	1,000
TOTAL	14,942,000	6,207,000	1,463,000	22,612,000	1,861,000	24,473,000
Previous Years						
1956	13,465,000	8,013,000	1,440,000	22,918,000	3,001,000	25,919,000
1955	12,393,000	5,628,000	1,830,000	19,851,000	2,751,000	22,602,000
1954	15,289,000	6,712,000	3,252,000	25,253,000	4,126,000	29,379,000
1953	17,894,000	4,979,000	1,774,000	24,647,000	1,989,000	26,636,000
1952	19,275,000	2,662,000	1,653,000	23,590,000	3,006,000	26,596,000
1951	15,717,000	2,819,000	1,923,000	20,459,000	4,381,000	24,840,000
1950	15,237,000	1,689,000	1,888,000	18,814,000	3,684,000	22,498,000
1949	13,745,000	2,129,000	2,189,000	18,063,000	4,205,000	22,268,000
1948	13,665,000	2,641,000	2,172,000	18,478,000	2,479,000	20,957,000
1947	17,868,000	4,298,000	1,819,000	23,985,000	2,585,000	26,570,000
1946	15,117,000	2,023,000	896,000	18,036,000	4,378,000	22,413,000
1945	11,606,000	2,340,000	1,163,000	15,109,000	4,571,000	19,680,000
1944	8,457,460	3,604,517	1,218,985	13,280,962	5,444,672	18,725,634
1943	6,381,348	5,155,435	1,331,575	12,907,123	12,337,126	25,018,553
1942	5,910,928	4,035,866	1,104,459	11,201,891	13,415,795	24,467,048
1941	8,625,079	3,139,021	1,014,192	12,959,499	10,033,720	28,812,612
1940	9,310,667	1,999,314	1,002,401	12,683,872	11,210,740	25,632,122
1939	9,904,289	3,018,504	445,500	13,465,162	9,319,026	22,687,319
1938	8,619,526	2,794,557	586,619	12,194,669	7,324,178	19,343,390
1937	9,026,372	2,333,370	377,796	11,765,314	7,015,057	18,773,489
1936	8,619,526	2,054,167	399,200	10,584,653	6,205,377	16,772,209
1935	7,636,704	2,246,196	349,300	10,206,054	6,927,581	17,159,781
1934	7,946,499	1,513,273	271,600	9,731,372	8,591,983	18,323,355

* Does not include landings by Canadian vessels in Alaska of 1,214,000 in 1957, 1,919,000 in 1956, 2,052,000 in 1955; or of landings in the State of Washington of 1,226,000 in 1957, 760,000 in 1956, and 245,000 in 1955.

§ Includes landings from minor British Columbia ports.

NOTE: 1957 figures of the International Pacific Halibut Commission are preliminary and subject to further corrections.

Alaska Ex-Vessel Halibut Prices

(In cents per pound)

	1957			1956		
PORT and MONTH	Chicken Halibut	Medium Halibut	Large Halibut	Chicken Halibut	Medium Halibut	Large Halibut
JUNEAU:						
May	10	13-14	11-12	12	15.5-16	14-14.5
June	10	14.5-17.5	13-17	12-13	17.5-21	13-16
July	10	17	16	12-13	22.5-24	19-21
August	10	16-17	15-16	13	23-24	21
September	10	16	16	13	20	18
KETCHIKAN:						
May	10-14.25	13-15.35	11-15.1	12-14	14-19.2	12-16.75
June	10-12	15-18	14.5-17.6	12.5-16.5	19-23.25	14-17.8
July	10	17.75-18	16.8-17	13	23.25-25.25	18-23
August	10	17.5-18	16.5-17	13	23-24	21-23
September	10	17.5-18	16.5-17	13-13.5	21-23.4	19.8-21
PELICAN:						
May	10	13-14.5	11-13	12	14-15.5	12-14
June	10	14.5-17	13-16	12-14.5	16.75-20	12-16
July	10	17	16	13-14	22-24	16.6-21
August	10	17	16-17	13	22-24	20-21
September	10	16	15	13	20	18
PETERSBURG:						
May	9-10	14-15	12	12-13	13.9-16.4	12-15
June	10	15.5-17	14-16.5	12-13	17-21.4	13-16.25
July	10	17	16.5	13-13.25	22-24.5	18-22.5
August	10	17	16	13	22.5-23.5	21.5-22
September	10	16.5-17	15.5-16	13-14	20.5-21	18-21
SITKA:						
May	10-11	13.5-14.85	11.5-12	12	14-15.5	12-14.5
June	10-11.4	15.5-17	13-16	12-13	16.15-20.7	15-16.5
July	10	17	16	13	22.5-24	20-21
August	10	16-17	15-16	13	22-23	20-21
September	10	16	15	13-14	20-20.5	17-18
WRANGELL:						
May	9.5-10	13.5-14	11.5-12	10-13	14.5-17.5	12-14.75
June	10-12	15-17	13-16.1	12-13.25	17-21.25	14-16.25
July	10	17	16	13	23.5-24.5	21-22.5
August	10	17	16	-	-	-
September	10	17	16	13	21	18

SOURCE: - U. S. Market News Service.

North Pacific Halibut Seasons

YEAR	AREA 2			AREA 3			YEAR
	Opened	Closed	Fishing Days	Opened	Closed	Fishing Days	
1933	Feb. 1	Aug. 25	206	Feb. 1	Oct. 26	268	1933
1934	Mar. 1	Aug. 19	172	Mar. 1	Oct. 27	241	1934
1935*	Mar. 1	Sept. 6	159*	Mar. 1	Dec. 26	270*	1935
1936	Mar. 16	Aug. 10	148	Mar. 16	Nov. 3	233	1936
1937	Mar. 16	July 28	135	Mar. 16	Oct. 19	218	1937
1938	Apr. 1	July 29	120	Apr. 1	Oct. 29	212	1938
1939	Apr. 1	July 29	120	Apr. 1	Oct. 28	211	1939
1940	Apr. 1	July 13	104	Apr. 1	Sept. 26	179	1940
1941	Apr. 1	June 30	91	Apr. 1	Sept. 14	167	1941
1942	Apr. 16	June 29	75	Apr. 16	Sept. 25	163	1942
1943	Apr. 16	June 20	66	Apr. 16	Sept. 8	146	1943
1944**	Apr. 16	July 9	51**	Apr. 16	Nov. 30	194**	1944
1945	May 1	June 15	46	May 1	Sept. 24	147	1945
1946	May 1	June 11	42	May 1	Aug. 19	111	1946
1947	May 1	June 8	39***	May 1	Aug. 17	109***	1947
1948	May 1	June 1	32	May 1	July 11	72	1948
1949	May 1	June 3	34	May 1	July 12	73	1949
1950	May 1	June 1	32	May 1	July 5	66	1950
1951	May 1	May 28	28§	May 1	June 25	56	1951
1952	May 14	June 8	26§	May 14	July 12	58	1952
1953	May 17	June 9	24§	May 17	July 7	52	1953
1954	May 16	June 5	21§	May 16	July 12	58	1954
1955	May 12	June 4	24§	May 12	Aug. 4	84	1955
1956	May 20	June 26	38§	May 20	Aug. 23	97	1956
1957	May 1	June 17	48	May 1	Sept. 22	144	1957

NOTE:- All dates given are for the legal season. Fishing times given are actual periods of fishing, with allowance made in certain years for delays in fishing due to strikes and disputes. Closure generally at midnight of dates given.

§Does not include special post-season open fishing periods in sub-areas.
* Fleet tied-up voluntarily until April 1.
** Fleet tied-up until May 20 in protest against OPA ceiling prices.
***Seattle fleet largely tied-up until July 1, due to crew share dispute.

Area 3A and 3B are largely recruited. However the fleet objected to the proposals and the commission modified its position while indicating the hope that the fleet would give this area a trial.

Alaska Landings Shrink

● Pattern of the voluntary stay-in-port program, plus the trends away from the Westward banks, reacted against Alaska deliveries of halibut in 1957, the territory sustaining a decline of almost 4 million pounds from the year before. So far as American deliveries went, Prince Rupert suffered also, losing more than one-third of the trade. In Canadian fish, however, the northern B. C. port actually gained a half-million pounds, primarily at the expense of Vancouver and the other southern ports.

Approximately 1.2 million pounds of the Alaska deliveries was fish landed by Canadian vessels.

One of the anomalies of the 1957 season was the fact that Canadian vessels, landing 2,440,000 lbs. of halibut in American ports, actually topped the deliveries of American vessels in Canada — 1,861,000 lbs. This had never happened before in the halibut fishery, which in the mid-twenties saw average American deliveries at Prince Rupert exceed 20,000,000 lbs. a year, with no Canadian fish to American ports.

1957 - HALIBUT ARRIVALS AT ALASKA PORTS* - 1957

MONTH			(Data in Pounds)						
	Ketchikan	Wrangell	Petersburg	Sitka	Juneau	Pelican	Misc. S. E. Alaska	Central+ Alaska	TOTAL Pounds
May	1,732,000	280,000	1,732,000	534,000	1,007,000	467,000	409,000	610,000	6,771,000
June	2,173,000	189,000	1,141,000	552,000	605,000	607,000	165,000	1,179,000	6,611,000
July	930,000	23,000	369,000	123,000	282,000	555,000	...	856,000	3,138,000
August	544,000	17,000	386,000	170,000	424,000	207,000	1,000	622,000	2,371,00
September	247,000	11,000	140,000	36,000	101,000	40,000	...	553,000	1,128,00
October	6,000	...	25,000	11,000	6,000	2,000	...	...	50,00
November	9,000	...	2,000	...	...	...	...	...	11,00
1957 TOTAL	5,641,000	520,000	3,795,000	1,426,000	2,425,000	1,878,000	575,000	3,820,000	20,080,00
Previous Years									
1956	7,639,000	727,000	4,151,000	1,772,000	3,049,000	2,215,000	1,154,000	3,200,000	23,907,00
1955	3,811,000	298,000	3,393,000	1,040,000	2,679,000	2,621,000	397,000	5,026,000	19,265,00
1954	5,611,000	376,000	4,117,000	2,382,000	3,382,000	3,040,000	585,000	3,408,000	22,901,00
1953	4,823,000	368,000	2,847,000	1,662,000	1,706,000	2,829,000	214,000	3,625,000	18,074,00
1952	7,696,000	430,000	3,022,000	2,023,000	2,645,000	2,244,000	139,000	2,661,000	20,860,00
1951	5,170,000	496,000	2,869,000	1,985,000	2,386,000	2,294,000	192,000	3,642,000	19,034,00
1950	6,992,000	479,000	3,140,000	3,103,000	3,823,000	3,351,000	75,000	4,372,000	25,265,00
1949	7,628,000	499,000	2,675,000	2,008,000	2,473,000	2,102,000	41,000	4,689,000	22,115,00
1948	7,700,000	716,000	2,548,000	2,990,000	2,797,000	2,362,000	114,000	4,742,000	23,969,00
1947	7,503,000	643,000	2,828,000	2,634,000	5,432,000**	...	...	3,389,000	22,429,00
1946	9,918,000	699,000	2,943,000	2,684,000	4,363,000**	...	...	2,279,000	22,886,0
1945	2,277,000	585,000	2,161,000	2,773,000	4,363,000**	...	...	2,221,000	20,887,0
1944	9,554,962	1,008,312	2,486,084	2,694,073	3,540,637	...	...	2,569,043	21,853,1
1943	7,450,730	727,157	1,936,825	1,691,697	2,289,947	...	...	...	14,096,3
1942	5,749,469	469,037	1,559,221	834,046	1,816,148	...	...	..	10,169,1
1941	3,367,567	375,135	1,463,801	2,173,697	1,616,928	...	...	...	8,998,6
1940	3,798,134	400,735	1,718,490	1,370,412	1,984,511	...	...	...	9,481,8
1939	2,263,927	279,660	1,460,190	931,557	2,001,999	...	...	...	6,897,2
1938	2,828,111	414,928	1,965,843	906,852	2,039,814	...	...	...	8,220,7
1937	3,642,996	590,834	1,352,807	893,602	1,832,533	...	...	. .	8,646,9
1936	3,556,364	494,221	1,979,813	945,933	1,541,674	...	...	...	8,654,3
1935	3,752,488	112,060	474,672	667,811	1,341,864	...	. .	..	6,538,1
1934	3,155,474	284,950	1,002,792	1,172,264	1,463,761	...	...	...	7,132,0

*Landings by Canadian vessels in Alaska included, which were 1,214,000 in 1957, 1,919,000 in 1956, and 2,052,000 in 1955.
+Port Williams, Seldovia, Anchorage, Sand Point, Seward and Cordove

**International Pacific Halibut Commission tagging.
NOTE:- 1957 figures of the International Pacific Halibut Commission ar preliminary and subject to further correction.

FREEZING

With a Note of Caution

1957

• Caution characterized Pacific fish freezing in 1957, when the ambitious operations of the year before were cut-back by a full 20% in total volume. The freeze of 1957 was 81,500,000 lbs., down from 109,000,000 lbs. the year before.

Why the sharp cut-back?

Due to various factors, among them:

1. Extended halibut season, the longest in years, giving many more weeks in which to sell this variety fresh, and as many fewer in which to market the frozen pack.
2. Limited catch in the case of halibut and salmon, the two largest contributors to frozen fish volume.
3. Memory of unhappy experiences with marketing the big production of 1956, when some heavy losses were taken.
4. Carryover of some goods from the previous season in spite of the loss selling resorted to in an effort to clean up.
5. Trend toward filleting, flitching, sticking and steaking, in which there was a gain of 1 million pounds in the pack, which translates into the equivalent of about 3 million pounds of bulk frozen.

These five factors add together to provide sound reason for the reduction in frozen fish volume in 1957.

As 1958 opened, careful operators inclined to the opinion that they had contributed to a healthy condition.

Furthermore, they felt that perhaps the 1957 freezing operations were a better indication of the sound course for the future than the larger activities of 1956.

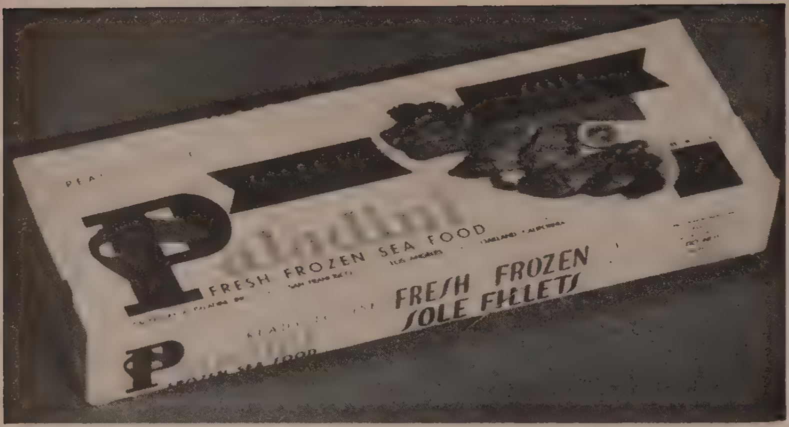
Halibut Catch Lower

• Shrinkage in the frozen pack of halibut, which fell in 1957 to 38.4 million pounds from above 50 million in 1956, was due primarily to two factors of supply.

First of all, the overall catch of North Pacific halibut by the American and Canadian fleets in 1957 was down by more than 5 million pounds from the year before. Moreover, the production of this reduced catch was extended over a much longer period. Thus a far larger proportion of the landings went to the fresh market than had been the case in previous years; with resultant reduction in the amount of halibut available for freezing, as well as the period in which it could go into consumption without compe-

1957 - Pacific Frozen Shellfish - 1957

Company	Location	(Pounds)						
		Dungeness Crabmeat Lbs.	King Crabmeat Lbs.	Crab in Shell Lbs.	Shrimp Meat Lbs.	Clams Shucked Lbs.	Oysters Shucked Lbs.	Total Lbs.
Alaska Fresh Company	Homer	...	2,417	...	...	...	...	2,417
Alaskan Glazier Sea Food Co.	Petersburg	...	...	...	175,000	...	...	175,000
Alaskan Seafood	Homer	...	7,250	...	...	...	...	7,250
Booth Fisheries Corp.	Seattle	23,603	...	...	3,265	4,870	68,960	100,698
British Columbia Packers, Ltd.	B. C. Points	4,602	...	...	13,862	...	47,588	66,052
Canadian Fishing Company, Ltd.	Vancouver	6	...	...	28,030	...	1,861	29,897
Coastal Glacier Sea Foods Co.	Pelican	50,238	...	...	...	...	...	50,238
Coos Bay Farmers Cooperative	North Bend	39,000	...	...	...	...	...	39,000
Fishermen's Cooperative Feder'n.	Prince Rupert	...	...	...	9,421	...	...	9,421
Grays Harbor Crab Company	Aberdeen	57,219	...	...	...	...	...	57,219
Haines' Oyster Company	Seattle	...	...	...	...	...	157,500	157,500
Harbor Seafood Company	Wrangell	...	...	...	72,342	...	...	72,342
Kaakinen Fish Company	Westport, Wash.	...	...	...	12,277	...	...	12,277
Kayler-Dahl Fish Company	Petersburg	...	...	...	78,115	...	...	78,115
Laslo Fish Company, Tom	Seldovia	360,572	...	...	88,728	...	...	449,300
Narrows Packing Company	Halibut Cove A	...	...	...	20,000	...	...	20,000
New England Fish Company	Oregon	80,000	...	...	...	...	...	80,000
Northern Oyster Company	Oysterville, W	...	...	...	...	...	4,500	4,500
Petersburg Cold Storage Co.	Petersburg	...	...	...	2,310	...	...	2,310
Queen Charlotte Canners	Massett, B. C.	40,599	...	225,742	...	...	...	266,341
Seaside Clam Company	Warrenton, Ore.	60,000	...	...	600	40,000	...	100,600
Seattle Seafoods Co.	Seattle	20,000	...	...	...	...	...	20,000
Seldovia Bay Packing Company	Seldovia	...	45,453	...	...	...	...	45,453
J. E. Shields Company	Bering Sea	...	33,270	...	...	...	...	33,270
Wakefield's Deep Sea Trawlers, Inc.	Alaska Peninsula Shumagin Islands Kodiak Area	...	1,125,000	875,000	...	...	...	2,000,000
Washington Fish & Oyster Co.	Seattle	6,665	...	...	491	2,114	5,211	14,481
Whiz Fish Products Co.	Seattle	200,000	...	...	...	...	...	200,000
TOTAL		942,504	1,213,390	1,100,742	504,441	46,984	285,620	4,093,681



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1957 - Pacific Frozen Food Fish - 1957

COMPANY	Plant Location	(Pounds)					
		Halibut	Salmon	Sablefish	Fillets	Miscellaneous	TOTAL
ALASKA							
Booth Fisheries Co.	All Points	1,500,100	435,500	7,800	2,000	...	1,945,400
Halibut Producers Cooperative	All Points	1,073,528	1,038,100	242,954	....	...	2,354,582
Kayler-Dahl Fish Company	Petersburg	1,309,625	195,676	617,116	....	...	2,122,417
McCallum-Legaz Fish Co.	All Points	500,000	110,000	35,000	....	...	645,000
New England Fish Company	All Points	3,575,000	425,000	50,000	....	...	4,050,000
Phillips, E.C.,	Ketchikan	1,600,000	200,000	150,000	....	...	1,950,000
San Juan Fishing & Packing Co.	Juneau	179,000	....	...	....	...	179,000
	Petersburg	851,000	99,200	160,400	....	...	1,110,600
	Sand Point	445,000	....	...	....	...	445,000
Seldovia Bay Packing Co	Seldovia	795,275	....	...	....	...	795,275
Vita Food Products, Inc.	All Points	217,027	839,501	622,193	....	4,664	1,683,385
Washington Fish & Oyster Co.	Port Williams	1,500,000	29,400	...	....	...	1,529,400
Whiz Fish Products Co.	Ketchikan	165,000	280,000	2,000	....	...	447,000
Miscellaneous, frozen at	Alaska Fish & Farm Products Aleutian Cold Storage Co. Cordova Cold Storage Co. Farwest Wrangell Co. Juneau Cold Storage Co. Ketchikan Cold Storage Co. Pelican Cold Storage Co. Petersburg Cold Storage Co. Sitka Cold Storage Co. Tokeen Ice & Cold Stg. Co. Other	...	3,238,220	916,033	264,483	15,080	4,433,816
Total Alaska		13,710,555	6,890,597	2,803,496	266,483	19,744	23,690,875
BRITISH COLUMBIA							
Booth Fisheries Corporation	All Points	357,700	157,800	5,300	52,900	...	573,700
British Columbia Packers, Ltd.	All Points	3,597,065	2,647,084	262,531	5,270,144	205,933	11,982,757
Canadian Fishing Co., The	Atlin Fisheries	2,140,899	468,771	112,019	289,048	2,218	3,012,955
	Butedale	758,905	313,004	173,827	....	2,363	1,248,099
	Vancouver	1,563,601	1,848,858	80,136	297,460	104,791	3,894,846
Fishermen's Cooperative Fed.	Fairview	* 3,448,100	* 2,083,891	* 309,234	228,377	253,653	* 6,323,255
	Vancouver	86,470	408,462	...	...	14,279	509,211
San Juan Fishing & Packing Co.	Prince Rupert	1,082,000	430,000	.	....	..	1,512,000
	Vancouver	427,000	....	..	.	..	427,000
Total British Columbia		18,461,740	8,357,870	943,047	6,139,929	583,237	29,483,823
PUGET SOUND							
Booth Fisheries Corporation	Seattle	1,722,500	645,600	496,700	460,000	539,000	3,863,800
Eardley Fisheries Company	Seattle	1,500,000	400,000	500,000	1,000,000	100,000	3,500,000
Everett Fish Company	Puget Sound	42,000	78,000	100,000	16,000	...	236,000
Halibut Producers Cooperative	Seattle	7,682	305,954	...	....	...	313,636
McCallum-Legaz Fish Co.	Seattle	500,000	190,000	250,000	....	...	940,000
New England Fish Company	Puget Sound	700,000	65,000	...	....	...	765,000
Rupert Fish Company	Seattle	246,748	....	...	....	...	246,748
San Juan Fishing & Packing Co.	Seattle	2,492,000	1,080,000	176,400	....	60,000	3,808,400
Seaport Fish Company	Seattle	190,471	253,375	190,895	44,000	65,838	744,579
Seattle Sea Foods Company	Seattle	1,020,000	50,000	15,000	....	...	1,085,000
Washington Fish & Oyster Co.	Seattle	1,581,200	645,705	170,675	15,000	145,724	2,558,304
Miscellaneous	All Points	369,399	....	79,330	1,201,000	174,438	1,824,167
Total Puget Sound		10,372,000	3,713,634	1,979,000	2,736,000	1,085,000	19,885,634
OREGON							
Columbia River Packers Assn.	Astoria	312,414	423,205	32,974	387,647	184,274	1,340,514
New England Fish Company	Oregon Points	70,000	125,000	80,000	450,000	...	725,000
Seaside Clam Company	Warrenton	....	8,000	..	....	...	8,000
Miscellaneous	All Points	488,586	236,795	189,206	1,185,353	128,726	2,228,666
Total Oregon		871,000	793,000	302,180	2,023,000	313,000	4,302,180
CALIFORNIA							
Halibut Producers Cooperative	All Points	....	61,550	.	....	...	61,550
Lazio Fish Company, Tom,	Eureka		125,493	147,084	445,384	104,603	822,564
Miscellaneous	All Points	55,000	82,957	177,916	572,616	2,370,397	3,258,886
Total California		55,000	270,000	325,000	1,018,000	2,475,000	4,143,000
TOTAL PACIFIC COAST		38,470,295	20,025,101	6,352,723	12,181,412	4,475,981	81,505,512

* Also froze 562,939 lbs. halibut; 59,110 lbs. salmon; 19,144 lbs. sablefish in B.C. Packers plant.

NOTES: (1) This table takes account of food fish only. It does not include fish frozen for bait or for animal food.
(2) Fish frozen for subsequent canning, or delivered frozen and held for canning, not included in this table
(3) Halibut flitches are reported under fillets.

tition from fresh fish.

The decline in deliveries of halibut should not be accepted as evidence of depletion. The catch in fact exceeded the quota slightly in the Western area; and largely from the local banks, this latter because the extra no-quota season there proved economically attractive to the fleet, in contrast with that to Westward.

Silvers and Falls Slump

- The 14-million-pound drop in Pacific salmon freezing in 1957 from the level of 1956 resulted almost wholly from the precipitate fall-off in the fishing for both Silvers and Falls in the autumn of the year.

In the case of Silvers this decline had been particularly surprising because the summer catch by trollers had been excellent; and this condition had been noted by sportsmen also in the approaches to Southern British Columbia and Puget Sound.

The Silver drop was particularly noted in Southeast Alaska, where there was sharp autumn competition between freezers and curers as the latter sought large Silvers for splitting in substitution for the short run of Kings for mild curing.

About the only place where the run of Silvers was up to hopes was along the Oregon coast during the fall months. Most of these fish found their way into the Columbia River for canning, and thus did not make large contribution to frozen pack.

1957 - Alaska Custom Cold Storage Freezings - 1957

(Pounds)

Company	Location	Halibut	Salmon	Sablefish	Fillets	Misc.	GRAND TOTAL
Alaska Fish & Farm Products	Anchorage	46,178	23,660	...	..	....	69,838
Aleutian Cold Storage Co.	Sand Point	1,340,000	158,000	...	...	...	1,498,000
Farwest Wrangell Co.	Wrangell	841,180	411,605	35,954	..	....	1,288,739
Juneau Cold Storage Co.	Juneau	2,486,199	684,925	1,151,458	...	....	4,322,582
Ketchikan Cold Storage Co.	Ketchikan	1,200,000	1,300,000	212,000	235,000	....	2,947,000
Pelican Cold Storage Co.	Pelican City	1,920,150	3,088,328	265,006	...	....	5,273,484
Petersburg Cold Storage Co.	Petersburg	2,325,541	386,304	1,082,852	28,517	8,498	3,831,712
Sitka Cold Storage Co.	Sitka	1,342,861	427,275	56,226	2,966	11,246	1,840,574
Tokeen Ice & Cold Storage Co.	Tokeen	210,000	410,500	...	...	....	620,500
TOTAL		11,712,109	6,890,597	2,803,496	266,483	19,744	21,692,429

Washington Fish Freezing by Months

(Pounds)

ITEM	Dec. '56	Jan. '57	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	TOTAL
FROZEN FISH													
Bait & Animal Food	70,000	464,000	380,000	324,000	425,000	350,000	197,000	169,000	3,000	72,000	154,000	69,000	2,677,000
Fillets and Steaks:													
Blocks and Slabs	...	3,000	8,000	...	...	...	...	...	1,000	1,000	...	1,000	14,000
Cod	11,000	30,000	49,000	60,000	85,000	74,000	142,000	32,000	62,000	22,000	50,000	93,000	710,000
Halibut	...	...	...	...	...	27,000	45,000	46,000	43,000	8,000	8,000	...	177,000
Lingcod	1,000	2,000	3,000	2,000	14,000	12,000	14,000	28,000	33,000	32,000	6,000	11,000	158,000
Ocean Perch, Pacific	47,000	5,000	21,000	13,000	24,000	15,000	36,000	10,000	35,000	84,000	59,000	39,000	388,000
Rockfish	4,000	2,000	6,000	20,000	3,000	7,000	4,000	5,000	4,000	15,000	14,000	36,000	120,000
Salmon	...	...	...	...	...	...	1,000	7,000	9,000	6,000	...	32,000	55,000
Sole	128,000	126,000	197,000	13,000	54,000	43,000	62,000	87,000	119,000	47,000	70,000	116,000	1,062,000
Other	4,000	11,000	7,000	...	7,000	...	...	4,000	4,000	...	3,000	...	40,000
Fish Sticks (Cooked & Uncooked)	11,000	...	...	...	...	...	...	...	...	...	...	...	11,000
Round, Dressed, etc.:													
Halibut	...	...	...	...	...	3,141,000	2,569,000	1,921,000	1,688,000	784,000	269,000	...	10,372,000
Sablefish	...	9,000	3,000	6,000	21,000	23,000	28,000	167,000	271,000	625,000	823,000	3,000	1,979,000
Salmon: King	...	...	...	...	14,000	135,000	272,000	273,000	318,000	233,000	17,000	6,000	1,268,000
Silver	...	...	...	...	4,000	3,000	8,000	402,000	531,000	249,000	65,000	22,000	1,284,000
Chum	...	...	...	...	...	...	...	3,000	4,000	8,000	460,000	224,000	699,000
Other	...	...	...	...	...	3,000	18,000	10,000	29,000	...	1,000	...	61,000
Total Salmon	...	...	...	...	18,000	141,000	298,000	688,000	882,000	490,000	543,000	252,000	3,312,000
Smelt	3,000	...	9,000	33,000	...	13,000	85,000	42,000	19,000	...	...	...	204,000
Other Fish	65,000	12,000	5,000	71,000	9,000	6,000	23,000	8,000	13,000	481,000	70,000	118,000	881,000
Total Frozen Fish	344,000	664,000	688,000	542,000	660,000	3,852,000	3,504,000	3,214,000	3,186,000	2,667,000	2,069,000	770,000	22,160,000
FROZEN SHELLFISH													
Clams & Clammeats	...	6,000	3,000	1,000	59,000	3,000	...	...	...	...	...	...	72,000
Crabs & Crab Meats	3,000	28,000	20,000	32,000	187,000	165,000	45,000	3,000	9,000	6,000	7,000	1,000	506,000
Oysters	59,000	47,000	59,000	51,000	25,000	18,000	3,000	1,000	1,000	...	9,000	38,000	311,000
Shrimp: Raw, Headless	1,000	...	...	...	...	1,000	2,000	...	...	...	...	...	4,000
Other Shellfish	1,000	...	...	...	2,000	4,000	...	...	...	1,000	...	2,000	10,000
Total Shellfish	64,000	81,000	82,000	84,000	273,000	191,000	50,000	4,000	10,000	7,000	16,000	41,000	903,000
TOTAL FROZEN FISH & SHELLFISH	408,000	745,000	770,000	626,000	933,000	4,043,000	3,554,000	3,218,000	3,196,000	2,674,000	2,085,000	811,000	23,063,000

Oregon Fish Freezing by Months

(Pounds)

ITEM	Dec. '56	Jan. '57	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	TOTAL
FROZEN FISH													
Bait & Animal Food	2,000	74,000	2,000	21,000	78,000	167,000	47,000	18,000	58,000	17,000	...	..	484,000
Fillets & Steaks:													
Blocks & Slabs	...	3,000	2,000	2,000	1,000	11,000	10,000	26,000	8,000	4,000	6,000	6,000	79,000
Cod	...	...	...	...	4,000	6,000	11,000	2,000	2,000	2,000	1,000	15,000	43,000
Halibut	...	...	...	...	...	40,000	77,000	176,000	73,000	42,000	37,000	...	445,000
Lingcod	...	...	...	...	1,000	1,000	2,000	...	1,000	...	...	...	5,000
Ocean Perch, Pacific	1,000	6,000	2,000	13,000	3,000	15,000	60,000	14,000	41,000	12,000	...	...	167,000
Rockfish	...	8,000	1,000	10,000	7,000	9,000	8,000	5,000	6,000	2,000	1,000	...	57,000
Salmon	...	...	...	...	23,000	14,000	56,000	14,000	23,000	28,000	10,000	15,000	183,000
Sole	5,000	27,000	24,000	6,000	41,000	96,000	99,000	144,000	126,000	112,000	42,000	33,000	755,000
Fish Sticks (Cooked & Uncooked)	...	1,000	5,000	2,000	3,000	16,000	30,000	20,000	33,000	27,000	93,000	59,000	289,000
Round, Dressed, etc :													
Halibut	...	...	...	...	...	315,000	292,000	120,000	73,000	1,000	...	...	801,000
Sablefish	...	2,000	...	...	3,000	5,000	16,000	22,000	57,000	136,000	59,000	2,000	302,000
Salmon: King	...	...	...	...	...	17,000	117,000	129,000	97,000	58,000	2,000	...	420,000
Silver	...	...	...	...	...	...	...	15,000	105,000	96,000	5,000	4,000	225,000
Chum	...	...	...	...	...	...	...	...	..	...	1,000	5,000	6,000
Unclassified	...	...	...	...	...	9,000	23,000	82,000	24,000	4,000	...	..	142,000
Total Salmon	...	...	...	...	...	26,000	140,000	226,000	226,000	158,000	8,000	9,000	793,000
Smelt	...	...	...	26,000	...	...	...	...	...	...	...	...	26,000
Other Fish	3,000	...	7,000	...	1,000	51,000	52,000	34,000	57,000	9,000	71,000	2,000	287,000
TOTAL Frozen Fish	11,000	121,000	43,000	80,000	165,000	772,000	900,000	821,000	784,000	550,000	328,000	141,000	4,716,000
FROZEN SHELLFISH													
Crabs & Crabmeats	...	109,000	81,000	63,000	90,000	84,000	18,000	...	...	...	...	10,000	455,000
Oysters	...	1,000	1,000	...	...	1,000	1,000	...	...	...	...	...	4,000
Other	...	...	...	...	6,000	...	...	...	...	...	...	6,000	12,000
TOTAL Shellfish	...	110,000	82,000	63,000	96,000	85,000	19,000	...	...	...	...	16,000	471,000
TOTAL FROZEN FISH & SHELLFISH	11,000	231,000	125,000	143,000	261,000	857,000	919,000	821,000	784,000	550,000	328,000	157,000	5,187,000

1957-CALIFORNIA FISH FREEZINGS-1957

(Pounds)

SPECIES	Nov. '56	Dec. '55	Jan. '57	Feb.	March	April	May	June	July	August	Sept.	Oct.	TOTAL
FROZEN FISH:													
Bait and Animal Food	222,000	95,000	257,000	271,000	373,000	571,000	792,000	712,000	658,000	393,000	196,000	170,000	4,710,000
Fillets:													
Blocks and Slabs	...	...	...	...	...	...	...	...	...	6,000	7,000	3,000	16,000
Cod	1,000	...	2,000	4,000	4,000	3,000	1,000	1,000	1,000	1,000	1,000	2,000	21,000
Flounder	...	1,000	...	...	...	...	...	...	...	1,000	...	...	2,000
Lingcod	1,000	...	...	...	...	...	1,000	...	...	...	...	...	2,000
Rockfish	3,000	...	...	2,000	...	...	...	1,000	...	...	...	..	6,000
Salmon	...	...	...	...	...	...	...	...	...	...	...	...	...
Sole	1,000	...	5,000	2,000	1,000	1,000	1,000	2,000	1,000	...	1,000	1,000	16,000
Other Fillets	137,000	41,000	21,000	31,000	9,000	31,000	107,000	105,000	107,000	209,000	115,000	42,000	955,000
Halibut	...	...	...	...	...	...	10,000	16,000	6,000	9,000	10,000	4,000	55,000
Mackerel	17,000	14,000	16,000	19,000	20,000	25,000	25,000	7,000	1,000	1,000	26,000	26,000	197,000
Sablefish	33,000	15,000	1,000	1,000	8,000	...	22,000	50,000	40,000	98,000	43,000	14,000	325,000
Salmon:													
King or Chinook	...	...	...	...	...	...	15,000	178,000	11,000	47,000	9,000	...	260,000
Silver or Coho	...	...	...	...	...	...	...	...	6,000	4,000	...	...	10,000
Fall or Chum	...	...	...	...	...	...	...	...	...	...	...	..	...
Unclassified Salmon	...	...	...	...	...	...	...	...	...	...	...	...	...
Sea Bass	84,000	41,000	...	10,000	9,000	1,000	...	...	10,000	25,000	7,000	...	187,000
Shad (Roe & Shad)	...	...	...	...	...	...	...	...	...	..	...	...	...
Smelt	...	...	...	...	...	...	...	1,000	...	...	4,000	..	5,000
Swordfish	...	...	...	...	...	...	...	...	...	...	13,000	19,000	32,000
Tuna	13,000	4,000	1,000	1,000	1,000	1,000	2,000	18,000	129,000	42,000	12,000	56,000	280,000
Unclassified	97,000	182,000	134,000	135,000	54,000	71,000	216,000	124,000	198,000	168,000	256,000	120,000	1,755,000
TOTALS:													
Salt Water Fish	609,000	393,000	437,000	476,000	479,000	704,000	1,192,000	1,215,000	1,168,000	1,004,000	700,000	457,000	8,834,000
Fresh Water Fish - All Varieties	4,000	...	...	...	2,000	9,000	1,000	...	2,000	...	1,000	...	19,000
FROZEN SHELLFISH:													
Clams & Clam Meats	...	...	...	...	...	...	...	34,000	106,000	46,000	41,000	...	227,000
Crabs & Crabmeat	...	22,000	92,000	128,000	136,000	138,000	138,000	39,000	1,000	...	...	...	694,000
Lobster Tails (Spiny)	60,000	136,000	56,000	68,000	13,000	3,000	...	1,000	...	...	...	120,000	457,000
Shrimp & Prawns (Incl. meat)	1,000	...	...	...	...	...	...	...	19,000	31,000	9,000	11,000	71,000
Squid	..	5,000	8,000	12,000	...	...	...	...	8,000	1,000	16,000	...	50,000
Other Shellfish	33,000	4,000	1,000	...	1,000	3,000	3,000	2,000	...	...	...	...	47,000
TOTAL Shellfish	94,000	167,000	157,000	208,000	150,000	144,000	141,000	76,000	134,000	78,000	66,000	131,000	1,546,000

Every freezer on the coast was set for a flush pack of Falls or Silver Brights—Chums to the canner—but they just did not come. For the third year in a row the usually productive Fall salmon fishery of the British Columbia coast was a dismal disappointment; and on Puget Sound the scant run was protected by a closure of fishing proclaimed as a "crash" measure to seed the spawning gravels sufficiently for the future.

Fillet Freezing Rises

● Fillets rose by a million pounds in the reported freezing of 1957, and this is particularly important, because when you freeze a pound of fillets you account for from 3 to 4 pounds of round fish.

A relative new factor in fillets is the growing business in halibut flitches, which are in fact fillets from good-sized halibut, and cross-cut into portions falling into certain weight groups.

As they are cut from the fresh fish and frozen, it seems altogether proper that halibut flitches should be listed under fillets rather than counted as frozen halibut.

Sablefish Volume Rises

● Freezing of sablefish showed a gain in 1957 of more than 1,500,000 lbs. from the previous year, probably due in some degree to its use for kipper-

Puget Sound Frozen Fish Packs

(Pounds)

YEAR	Halibut	Salmon	Steelhead & Fillets	Sablefish	Miscellaneous	TOTAL	YEAR
1928	3,929,600	5,737,402	72,399	1,676,530	1,091,008	12,506,939	1928
1929	4,365,139	5,737,367	118,034	1,339,912	1,272,772	12,833,224	1929
1930	4,008,690	6,767,538	58,246	2,057,845	2,114,206	15,006,525	1930
1931	7,124,976	7,034,178	57,815	941,986	742,543	15,901,498	1931
1932	6,241,135	4,764,945	11,375	1,045,588	470,872	12,533,915	1932
1933	8,575,289	8,685,729	*160,080	842,039	456,298	18,719,435	1933
1934	9,592,971	8,276,309	* 54,479	1,381,287	1,306,520	20,611,566	1934
1935	7,056,953	10,996,930	...	1,740,122	1,415,122	20,939,915	1935
1936	7,395,485	6,704,971	...	1,309,243	811,273	16,220,972	1936
1937	8,490,747	10,121,808	...	2,314,399	1,578,453	22,505,407	1937
1938	8,174,462	7,796,087	...	2,248,790	2,342,902	20,562,241	1938
1939	7,795,768	4,488,450	...	1,887,336	1,827,266	15,998,820	1939
1940	8,645,576	6,748,021	...	1,832,112	1,600,432	18,826,141	1940
1941	9,440,017	7,569,858	...	1,348,723	2,345,540	20,704,138	1941
1942	6,815,874	5,608,307	Fillets	1,221,946	3,066,177	16,712,304	1942
1943	4,250,010	2,530,755	429,394	860,577	6,846,616	14,917,352	1943
1944	5,237,071	4,264,315	2,893,179	2,305,848	3,777,952	18,478,365	1944
1945	6,728,420	9,030,403	4,193,268	1,071,769	5,673,660	26,697,547	1945
1946	8,050,947	6,388,388	3,895,400	1,714,185	2,807,240	22,856,160	1946
1947	4,933,377	4,241,310	1,658,152	921,204	1,004,330	12,758,373	1947
1948	7,152,574	4,355,399	2,393,487	1,519,514	797,882	16,218,856	1948
1949	7,535,497	5,123,763	1,192,440	1,846,314	1,088,490	16,786,504	1949
1950	6,270,705	4,706,925	1,166,019	1,547,807	4,520,880	18,917,886	1950
1951	7,789,536	4,314,516	2,119,910	1,791,000	2,275,577	18,290,539	1951
1952	8,345,650	5,532,676	3,400,786	1,661,919	751,310	19,296,340	1952
1953	9,473,444	6,380,981	1,654,189	1,651,734	462,602	19,622,950	1953
1954	12,201,900	4,740,637	2,651,084	1,498,376	460,545	21,552,542	1954
1955	11,058,245	4,034,495	2,913,312	1,638,426	714,435	20,358,913	1955
1956	11,224,579	6,746,753	3,235,661	2,002,242	1,256,057	24,465,292	1956
1957	10,372,000	3,713,634	2,736,000	1,979,000	1,085,000	19,885,634	1957

NOTE:- Since 1942 Steelheads have been combined with Salmon. Figures given in this column cover the quantities of frozen fillets of all varieties of fish reported.
*All Steelheads frozen on Puget Sound were Columbia River fish shipped to Seattle for freezing. Data are for food fish only and do not include fish frozen for bait or animal food; nor do they include fish frozen for subsequent canning. Halibut flitches are reported under fillets.

Alaska Fish Freezing by Months

(Pounds)

ITEM	Dec. '56	Jan '57	Feb	March	April	May	June	July	August	Sept.	Oct.	Nov.	TOTAL
FROZEN FISH													
Bait & Animal Food	.	1,111,000	529,000	433,000	408,000		15,000	35,000	158,000	90,000	21,000	3,000	2,803,000
Fillets & Steaks:													
Halibut	...	...	...	...	..	106,000	100,000	26,000	32,000	10,000	.	...	274,000
Lingcod	. .	. .	..	...	.	1,000	..	.	3,000	..	..	..	4,000
Other		. .		...	..	.		.	..	..	...	...	..
Round, Dressed, etc.:													
Halibut	.	. .	..	..	...	4,186,000	6,144,000	2,998,000	2,274,000	1,167,000	55,000	2,000	16,826,000
Sablefish	35,000		.	..	31,000	87,000	164,000	1,051,000	457,000	431,000	526,000	46,000	2,828,000
Salmon: King		...	..	..	2,000	129,000	351,000	429,000	685,000	265,000	72,000	28,000	1,961,000
Silver	..	...	..	. .	...	..	21,000	425,000	1,644,000	513,000	...	...	2,603,000
Chum	...	..	..	...	...	.	3,000	20,000	112,000	594,000	41,000	...	770,000
Unclassified	...	...	...	...	...	3,000	188,000	166,000	38,000	...	...	...	395,000
Total Salmon	..	...	...	..	2,000	132,000	563,000	1,040,000	2,479,000	1,372,000	113,000	28,000	5,729,000
Other Fish	...	...	...	...	1,000	...	3,000	201,000	..	4,000	...	...	209,000
Total Frozen Fish	35,000	1,111,000	529,000	433,000	442,000	4,512,000	6,989,000	5,351,000	5,403,000	3,074,000	715,000	79,000	28,673,000
FROZEN SHELLFISH													
Crabs & Crabmeats	195,000	277,000	146,000	446,000	405,000	170,000		. .	.	27,000	417,000	157,000	2,240,000
Shrimp													
Raw, Headless	...	...	...	...	..	..	.	.	.	..	...	...	. .
Other (Incl. Breaded)	15,000	24,000	16,000	. .	..	17,000	10,000	..	...	3,000	10,000	14,000	109,000
Total Shellfish	210,000	301,000	162,000	446,000	405,000	187,000	10,000	. .	..	30,000	427,000	171,000	2,349,000
TOTAL FROZEN FISH & SHELLFISH	245,000	1,412,000	691,000	879,000	847,000	4,699,000	6,999,000	5,351,000	5,403,000	3,104,000	1,142,000	250,000	31,022,000

BRITISH COLUMBIA FROZEN FISH PACKS

(Pounds)

YEAR	Halibut	Salmon	Steelhead & Fillets	Sablefish	Miscellaneous	TOTAL	YEAR
1928	[illegible]	10,153,276	[illegible]	707,435	1,793,317	[illegible]	1928
1929	7,013,413	7,971,042	324,123	533,000	1,305,898	17,147,476	1929
1930	5,375,642	6,544,460	414,720	645,142	741,386	13,721,350	1930
1931	5,467,170	5,758,952	414,000	292,829	240,469	12,173,420	1931
1932	6,197,495	7,672,062	533,244	307,922	228,740	14,939,463	1932
1933	6,620,254	7,158,967	344,974	388,751	471,924	14,984,870	1933
1934	8,956,815	10,182,469	40,672	180,119	920,509	20,280,582	1934
1935	9,756,717	10,707,787	226,000	789,000	861,860	22,341,364	1935
1936	9,504,340	11,320,303	234,690	1,266,555	742,043	23,062,931	1936
1937	9,550,661	11,698,592	200,361	1,378,442	698,481	23,526,537	1937
1938	10,870,867	12,662,933	324,000	1,329,009	987,260	26,174,069	1938
1939	13,414,006	9,631,742	189,516	1,080,053	813,956	25,129,273	1939
1940	13,453,612	11,347,239	237,000	1,285,915	1,317,404	27,641,170	1940
1941	14,560,498	9,632,364	91,913	1,604,554	966,559	26,855,888	1941
1942	16,571,639	12,150,338	18,046	1,697,327	3,541,929	33,979,279	1942
1943	10,397,337	13,313,250	60,076	2,320,559	2,667,881	28,759,103	1943
1944	12,574,036	14,793,573	572,315	1,856,055	3,763,055	33,559,190	1944
1945	10,290,942	19,931,674	1,745,529	1,254,623	5,890,142	39,112,910	1945
1946	12,782,294	14,384,544	1,972,000	1,778,855	11,486,110	42,403,803	1946
1947	14,930,795	13,583,850	1,057,828	729,492	6,357,106	36,659,071	1947
1948	11,512,287	15,209,533	1,650,856	1,651,028	18,236,028	48,259,732	1948
1949	12,629,300	19,584,100	3,480,500	1,967,500	6,946,700	44,608,100	1949
1950	15,081,000	23,425,000	701,789	271,848	5,393,954	44,873,591	1950
1951	13,358,332	16,000,909	2,292,931	1,050,718	7,492,483	40,195,373	1951
1952	12,992,587	17,351,803	7,418,334	883,769	3,720,635	42,367,128	1952
1953	18,214,460	14,032,572	5,462,997	1,078,236	524,395	39,312,660	1953
1954	16,268,341	12,354,783	4,687,477	838,577	749,663	34,898,841	1954
1955	15,311,383	10,095,148	1,052,911	936,661	1,163,657	28,559,760	1955
1956	20,074,256	15,891,317	5,532,963	430,934	959,490	42,888,960	1956
1957	13,461,740	8,357,870	6,137,929	943,047	583,237	29,483,823	1957

NOTE:- Since 1942 all Steelheads have been combined with Salmon; and figures given in the "Steelheads and Fillets" column for years 1942 cover quantities of fillets of all varieties of fish reported. Data are for food fish only and do not include fish frozen for bait or animal food, nor for subsequent canning. Halibut flitches are included under fillets

DIAMOND ICE AND STORAGE CO.

FISH FREEZING A SPECIALTY — GENERAL COLD STORAGE

Western Avenue and Union Street Telephone: MAin 4-3540 SEATTLE 1, WASH.

A. R. Lantz Gus D. Vellis David Cornman

FROZEN FISH

BROKERS **A. R. LANTZ CO., Inc.** IMPORTERS

624 E. 4th St. MUtual 5368 LOS ANGELES 13

PACIFIC COAST FROZEN FISH

YEAR	(Pounds)						YEAR
	Halibut	Salmon	Steelhead & Fillets	Sablefish	Miscellaneous	TOTAL	
1928	20,180,501	23,522,228	1,736,900	3,037,875	3,147,845	51,625,349	1928
1929	23,192,029	20,285,535	1,989,936	2,467,317	3,881,054	51,815,871	1929
1930	21,262,804	20,142,524	1,795,703	3,706,823	4,377,468	51,285,322	1930
1931	19,274,638	18,706,304	1,787,279	2,065,327	3,317,959	45,151,507	1931
1932	14,943,916	19,099,265	1,084,689	1,904,579	1,828,499	38,860,948	1932
1933	21,197,099	21,101,484	1,368,364	1,851,856	2,620,049	48,138,852	1933
1934	25,010,373	25,181,600	1,082,339	2,354,183	3,731,735	57,360,230	1934
1935	22,193,028	27,979,608	695,447	4,158,382	4,288,100	59,314,565	1935
1936	24,483,127	24,168,556	888,677	3,817,582	3,849,238	57,202,180	1936
1937	25,611,959	28,809,866	723,857	5,964,158	4,227,376	65,337,216	1937
1938	26,290,123	29,019,550	794,183	4,608,638	6,091,588	66,804,082	1938
1939	27,884,761	19,812,999	544,865	5,036,206	6,313,548	59,592,379	1939
1940	30,989,043	25,106,033	281,986	5,339,661	8,207,464	69,924,187	1940
1941	32,267,665	23,961,770	93,541	5,019,374	10,963,419	72,305,769	1941
1942	32,334,253	26,256,142	249,336	7,983,957	16,986,000	83,809,688	1942
1943	25,882,523	25,930,418	4,447,875	7,546,624	20,223,179	84,030,619	1943
1944	37,668,595	31,748,145	9,199,424	9,777,304	17,200,082	105,593,550	1944
1945	36,879,253	44,991,950	8,115,197	8,552,441	30,774,204	129,313,045	1945
1946	36,941,548	38,036,107	10,661,450	8,611,842	22,910,725	117,161,672	1946
1947	42,294,602	29,928,104	4,454,941	2,633,912	12,660,753	91,972,312	1947
1948	45,098,451	30,376,166	8,619,585	8,570,289	20,778,163	113,432,654	1948
1949	40,286,125	34,294,242	6,394,213	7,740,630	9,479,721	98,194,931	1949
1950	47,401,296	37,230,172	7,152,856	2,506,826	13,698,707	107,989,857	1950
1951	41,032,442	30,003,546	7,872,151	6,281,413	13,216,333	98,405,885	1951
1952	38,907,883	29,817,889	16,167,000	3,772,951	8,948,115	97,613,838	1952
1953	47,895,545	28,145,986	11,584,046	5,706,589	5,016,990	98,349,156	1953
1954	50,440,248	27,935,024	11,260,372	5,797,886	5,550,693	100,984,223	1954
1955	43,306,006	20,109,914	7,007,435	5,309,976	4,091,047	79,824,378	1955
1956	53,577,345	34,294,826	11,122,612	4,721,730	5,347,270	109,063,783	1956
1957	38,470,295	20,025,101	12,181,412	6,352,723	4,475,981	81,505,512	1957

NOTE:- Since 1942 Steelheads have been combined with Salmon. Figures given in this column for years after 1942 cover the quantities of frozen fillets of all varieties of fish reported. Data in this table based on individual reports of principals and custom storages to this journal. Data are for food fish only and do not include fish frozen for bait or animal food; nor do they include fish frozen for subsequent canning. Halibut flitches are reported under fillets

ing and smoking, where there was a shortage of frozen and mild cured salmon.

This fish, with its remarkable resistance to deterioration in storage, and its extreme richness, has special attraction in the smoking trade, where its ability to undergo storage without oxidation and rancidity give it distinctive position.

Impermeable Films and Foils Protect Outstanding Advance

● No aspect in the recent progress of Pacific fish freezing appears more significant than that toward portion-control and particularly that phase of this movement concerned with flitching of halibut.

Along with the gains in marketing Pacific frozen varieties on a portion-controlled basis have gone protective films and foils, which have consolidated the gains, and in some cases perhaps have made them possible.

The large cuts, whether they are flitches or not, lend themselves specially to protection by means of shrinking films from which the air has been exhausted by vacuum pump or in some cases the replacement of air with inert gas.

Antibiotic Advantages Are Once More Postponed

● Anticipated approval of the use of antibiotics for protection of quality in fresh and frozen fish again was denied in 1957, while continuing to be permitted in the poultry industry by the Federal authorities.

This was a bitter disappointment to the fresh and frozen fish business, which had waited with varying degrees of patience for a number of years while the national authorities scrutinized all possible angles of the use of antibiotics on fish, whether for

HOLDINGS OF FROZEN SALMON IN CANADA BY MONTHS

Year	(Pounds)												Year
	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1943	6,388,157	4,182,422	3,187,367	1,424,622	749,130	421,899	618,566	1,292,092	2,491,083	3,922,968	7,861,284	9,720,826	1943
1944	8,245,459	6,228,542	4,036,324	2,572,067	1,723,599	1,192,453	1,323,970	2,225,799	4,458,686	7,569,646	9,592,929	8,525,062	1944
1945	5,754,484	4,212,779	3,064,075	1,916,384	1,224,894	653,660	975,614	2,603,913	5,848,648	8,889,338	12,264,609	11,286,939	1945
1946	8,995,555	6,201,817	4,664,805	2,859,525	1,470,544	719,534	1,477,539	2,310,009	4,287,429	6,910,578	10,414,810	12,529,428	1946
1947	10,484,688	8,068,793	5,641,958	4,244,254	3,066,183	2,041,997	1,849,142	3,317,623	4,788,724	6,115,604	10,991,495	11,346,880	1947
1948	12,471,000	10,916,000	8,925,000	5,322,000	3,454,000	2,821,000	2,721,000	3,992,000	4,679,000	6,007,000	12,481,000	10,379,000	1948
1949	9,310,000	7,786,000	5,574,000	3,880,000	2,997,000	2,467,000	3,220,000	4,770,000	7,350,000	9,306,000	14,987,000	11,573,000	1949
1950	9,573,000	8,243,000	6,045,000	4,095,000	2,916,000	2,193,000	2,526,000	3,493,000	7,153,000	13,008,000	16,790,000	14,409,000	1950
1951	12,032,000	10,172,000	6,808,000	5,009,000	4,023,000	2,597,000	2,640,000	4,450,000	7,560,000	10,811,000	16,479,000	14,998,000	1951
1952	13,342,000	10,838,000	9,247,000	6,657,000	5,785,000	4,394,000	5,185,000	6,446,000	9,239,000	10,532,000	12,236,000	11,480,000	1952
1953	10,455,000	8,096,000	5,848,000	4,287,000	2,985,000	2,649,000	3,477,000	4,480,000	7,533,000	10,450,000	15,498,000	13,095,000	1953
1954	11,591,000	10,054,000	7,516,000	4,627,000	3,527,000	2,385,000	2,143,000	4,538,000	6,052,000	9,597,000	12,866,000	12,014,000	1954
1955	9,769,000	7,576,000	5,866,000	3,654,000	2,634,000	1,754,000	1,801,000	3,334,000	6,230,000	6,964,000	7,909,000	5,470,000	1955
1956	4,380,000	3,059,000	2,125,000	1,473,000	1,156,000	938,000	2,060,000	4,940,000	8,465,000	10,869,000	10,852,000	10,241,000	1956
1957	8,999,000	8,481,000	7,434,000	5,632,000	4,546,000	3,922,000	6,748,000	6,013,000	10,121,000	8,005,000	*	*	1957

NOTE: - All figures in accordance with latest reports. Source: Dominion Bureau of Statistics, Department of Trade and Commerce. *Data not available.

F. ALIOTO FISH COMPANY

Quality **Nationwide Shippers** **Service**

San Francisco, California

PACIFIC FROZEN FISH

DISTRICT & YEAR	Halibut Pounds	Salmon Pounds	Fillets Pounds	Sablefish Pounds	Miscellaneous Pounds	TOTALS	DISTRICT & YEAR
1947							1947
Alaska	20,638,301	10,197,755	4,597	886,535	383,473	32,110,661	Alaska
British Columbia	14,930,795	13,583,850	1,057,828	729,492	6,357,106	36,659,071	British Columbia
Puget Sound & Wash. Coast	4,933,377	4,241,310	1,658,152	921,204	1,004,330	12,758,373	Puget Sound & Wash. Coast
Columbia Riv. & Ore. Coast	618,266	1,272,508	1,681,488	60,786	985,697	4,618,745	Columbia Riv. & Ore. Coast
California	1,173,863	632,681	52,876	35,895	3,930,147	5,825,462	California
TOTAL, 1947	42,294,602	29,928,104	4,454,941	2,633,912	12,660,753	91,972,312	TOTAL, 1947
1948							1948
Alaska	26,020,134	9,582,232	165,370	5,065,056	5,290	40,838,082	Alaska
British Columbia	11,512,287	15,209,533	1,650,856	1,651,028	4,210,412	34,234,116	British Columbia
Puget Sound & Wash. Coast	7,152,574	4,355,399	2,393,487	1,519,514	797,882	16,218,856	Puget Sound & Wash. Coast
Columbia Riv. & Ore. Coast	410,091	1,187,802	4,241,705	329,857	. . .	6,169,455	Columbia Riv. & Ore. Coast
California	3,365	41,200	168,167	4,834	1,728,963	1,946,429	California
TOTAL, 1948	45,098,451	30,376,166	8,619,585	8,570,289	6,742,547	99,407,038	TOTAL, 1948
1949							1949
Alaska	20,914,221	12,222,337	1,309	3,772,851	271,901	37,182,619	Alaska
British Columbia	12,629,300	19,584,100	3,480,500	1,967,500	6,946,700	44,608,100	British Columbia
Puget Sound & Wash. Coast	7,535,497	5,123,763	1,192,440	1,846,314	1,088,490	16,786,504	Puget Sound & Wash. Coast
Columbia Riv. & Ore. Coast	324,527	458,280	2,567,863	289,205	121,994	3,761,869	Columbia Riv. & Ore. Coast
California	5,912	124,301	790,780	6,547	3,083,428	4,010,968	California
TOTAL, 1949	41,409,457	37,512,781	8,032,892	7,882,417	11,512,513	106,350,060	TOTAL, 1949
1950							1950
Alaska	25,625,940	8,467,426	5,113	566,965	98,409	34,763,853	Alaska
British Columbia	15,081,000	23,425,000	701,789	271,848	5,393,954	44,873,591	British Columbia
Puget Sound & Wash. Coast	6,270,705	4,706,925	1,166,019	1,547,807	5,226,430	18,917,886	Puget Sound & Wash. Coast
Columbia Riv. & Ore. Coast	417,651	483,068	3,383,682	63,081	333,117	4,679,599	Columbia Riv. & Ore. Coast
California	60,000	147,753	1,897,253	57,125	2,646,797	4,754,928	California
TOTAL, 1950	47,401,296	37,230,172	7,152,856	2,506,826	13,698,707	107,989,857	TOTAL, 1950
1951							1951
Alaska	19,577,948	8,780,110	6,888	3,241,556	820,473	32,427,075	Alaska
British Columbia	13,358,332	16,000,909	2,292,931	1,050,718	7,492,483	40,195,373	British Columbia
Puget Sound & Wash. Coast	7,789,536	4,314,516	2,119,910	1,791,000	2,275,577	18,290,539	Puget Sound & Wash. Coast
Columbia Riv. & Ore. Coast	291,936	735,305	3,199,153	189,694	124,761	4,540,849	Columbia Riv. & Ore. Coast
California	14,690	172,706	253,169	8,445	2,503,039	2,952,049	California
TOTAL, 1951	41,032,442	30,003,546	7,872,151	6,281,413	13,216,333	98,405,885	TOTAL, 1951
1952							1952
Alaska	17,341,747	5,327,279	8,977	988,520	205,955	23,872,478	Alaska
British Columbia	12,992,587	17,351,803	7,418,334	883,769	3,720,635	42,367,128	British Columbia
Puget Sound & Wash. Coast	8,345,650	5,532,676	3,004,786	1,661,919	751,310	19,296,341	Puget Sound & Wash. Coast
Columbia Riv. & Ore. Coast	219,223	1,157,484	3,827,761	166,072	136,084	5,506,624	Columbia Riv. & Ore. Coast
California	8,676	448,647	1,907,142	72,671	4,134,131	6,571,267	California
TOTAL, 1952	38,907,883	29,817,889	16,167,000	3,772,951	8,948,115	97,613,838	TOTAL, 1952
1953							1953
Alaska	19,727,501	6,399,247	46,675	2,599,418	730,465	29,503,306	Alaska
British Columbia	18,214,460	14,032,572	5,462,997	1,078,236	524,395	39,312,660	British Columbia
Puget Sound & Wash. Coast	9,473,444	6,380,981	1,654,189	1,651,734	462,602	19,622,950	Puget Sound & Wash. Coast
Columbia River & Ore. Coast	389,483	630,630	2,382,420	204,842	676,081	4,283,456	Columbia Riv. & Ore. Coast
California	90,657	702,556	2,037,765	172,359	2,623,447	5,626,784	California
TOTAL, 1953	47,895,545	28,145,986	11,584,046	5,706,589	5,016,990	98,349,156	TOTAL, 1953
1954							1954
Alaska	20,987,363	9,341,468	57,468	3,072,158	203,706	33,662,163	Alaska
British Columbia	16,268,341	12,354,783	4,687,477	838,571	749,663	34,898,841	British Columbia
Puget Sound & Wash. Coast	12,201,900	4,740,637	2,651,084	1,498,376	460,545	21,552,542	Puget Sound & Wash. Coast
Columbia River & Ore. Coast	864,352	788,963	1,672,109	154,456	210,124	3,690,004	Columbia Riv. & Ore. Coast
California	118,292	709,173	2,192,234	234,319	3,926,655	7,180,673	California
TOTAL, 1954	50,440,248	27,935,024	11,260,372	5,797,886	5,550,693	100,984,223	TOTAL, 1954
1955							1955
Alaska	16,597,154	4,459,926	328,613	2,389,290	102,615	23,877,598	Alaska
British Columbia	15,311,383	10,095,148	1,052,911	936,661	1,163,657	28,559,760	British Columbia
Puget Sound & Wash. Coast	11,058,245	4,034,495	2,913,312	1,638,426	714,435	20,358,913	Puget Sound & Wash. Coast
Columbia Riv. & Ore. Coast	276,224	554,345	1,121,886	118,000	123,275	2,193,730	Columbia Riv. & Ore. Coast
California	63,000	966,000	1,590,713	227,599	1,987,065	4,834,377	California
TOTAL, 1955	43,306,006	20,109,914	7,007,435	5,309,976	4,091,047	79,824,378	TOTAL, 1955
1956							1956
Alaska	21,718,748	8,603,212	3,818	1,919,865	77,455	32,323,098	Alaska
British Columbia	20,074,256	15,891,317	5,532,963	430,934	959,490	42,888,960	British Columbia
Puget Sound & Wash. Coast	11,224,579	6,746,753	3,235,661	2,002,242	1,256,057	24,465,292	Puget Sound & Wash. Coast
Columbia Riv. & Ore. Coast	450,762	1,790,544	1,290,170	203,583	288,374	4,023,433	Columbia Riv. & Ore. Coast
California	109,000	1,263,000	1,060,000	165,106	2,765,894	5,363,000	California
TOTAL, 1956	53,577,345	34 294,826	11,122,612	4,721,730	5,347,270	109,063,783	TOTAL, 1956
1957							1957
Alaska	13,710,555	6,890,597	266,483	2,803,496	19,744	23,690,875	Alaska
British Columbia	13,461,740	8,357,870	6,137,929	943,047	583,237	29,483,823	British Columbia
Puget Sound & Wash. Coast	10,372,000	3,713,634	2,736,000	1,979,000	1,085,000	19,885,634	Puget Sound & Wash. Coast
Columbia Riv. & Ore. Coast	871,000	793,000	2,023,000	302,180	313,000	4,302,180	Columbia Riv. & Ore. Coast
California	55,000	270,000	1,018,000	325,000	2,475,000	4,143,000	California
TOTAL, 1957	38,470,295	20,025,101	12,181,412	6,352,723	4,475,981	81,505,512	TOTAL, 1957

NOTE:- Since 1942 Steelheads have been combined with salmon. Figures given in this column cover the quantities of frozen fillets of all varieties of fish reported. British Columbia figures include only amounts directly reported by owners of the fish and do not include unreported quantities in custom freezers. Data cover food fish only and do not include fish frozen for bait or animal food, nor for subsequent canning. Halibut flitches are reported under fillets.

1957 -Seattle-Weighted Average Prices Paid to Fishermen-1957

SPECIES		Cents per Pound										
	Dec. '56	Jan. '57	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov
Cod, true, ex-vess ______ Dr.	8.7	...	...	...	...	...	8.7	...	...	...	...	8.7
Cod, true, ex-vess ______ Rd.	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.5	4.9	5.0
Flounder, ex-vess ______ Rd.	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Halibut No. 1, ex-vess ______ Dr.	26.7	24.5	...	...	...	19.7	22.0	24.1	21.3	24.3	26.2	...
Halibut No. 2, ex-vess ______ Dr.	25.0	26.9	...	...	...	15.8	19.1	20.0	17.9	20.0	20.2	...
Lingcod, ex-vess ______ Dr.	12.5	11.0	9.4	10.0	10.0	6.0	5.2	...	5.0	5.1	4.0	8.0
Lingcod, ex-vess ______ Rd.	5.0	7.0	5.8	5.0	5.0	5.0	5.0	5.0	5.6	4.8	5.0	5.0
Pac. Ocean Perch, ex-vess ______ Rd.	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Rockfish, ex-vess ______ Dr.	...	10.0	9.0	...	...	5.0	5.0	5.0	5.0	5.0	5.0	...
Rockfish, ex-vess ______ Rd.	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.4	4.5	4.1
Sablefish, ex-vess ______ Dr.	...	14.0	14.0	14.0	14.0	13.0	16.1	15.1	15.2	15.0	15.8	...
Sablefish, ex-vess ______ Rd.	...	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.0	7.8	...
SALMON:												
Chinook, large, ex-vess ______ Dn.	...	...	...	...	51.7	48.5	4[illegible].5	49.0	46.5	51.7	63.3	...
Chinook, small, ex-vess ______ Dn.	...	...	...	...	41.0	35.6	32.4	31.7	28.0	31.2	42.8	...
Chinook, white, ex-vess ______ Dn.	...	...	...	...	...	38.4	35.0	34.1	31.0	34.1	44.5	...
Chinook, ex-vess ______ Rd.	...	...	...	...	...	...	...	30.0	...	25.1	30.0	...
Chum, ex-vess ______ Rd.	...	...	...	...	...	...	...	...	...	18.0	20.0	20.0
Silver, ex-vess ______ Dn.	...	...	...	...	...	...	28.3	30.0	28.0	33.8	44.1	...
Silver, ex-vess ______ Rd.	...	...	...	...	...	...	...	...	...	23.0	30.0	30.0
Pink, ex-vess ______ Rd.	...	...	...	...	...	...	...	...	...	17.0	...	...
Sole, English, ex-vess ______ Rd.	8.0	8.0	8.0	8.0	8.0	8.0	8.0	...	8.0	8.0	8.0	7.9
Sole, Petrale, ex-vess ______ Rd.	10.0	10.0	10.0	10.0	10.0	10.0	10.0	...	10.0	9.4	9.5	9.5
Sole, Other, ex-vess ______ Rd.	6.0	6.0	6.0	6.0	6.0	6.0	6.0	...	6.0	5.6	...	...
Tuna, Albacore, ex-vess ______ Rd.	...	...	...	...	...	...	...	...	...	...	15.0	15.0
Unclassified fish, ex-vess __ Fresh	25.0	17.0	11.0	5.1	...	...	...	15.0	13.8	19.6	20.5	5.5

marketing fresh, frozen or canned.

The industry is interested in the antibiotics not alone for the economic advantage which they promise in the matter of protecting quality in the interval prior to canning or consumer use, but also because of the possibilities they hold for offering the consumer the highest possible quality and thus stimulating per capita consumption of the product.

These gains are anticipated in part on the basis of experience in the poultry industry, which has been permitted to use the quality-protective materials for years.

Currently, antibiotics are permitted to be employed on fish in Canada, Greece, the Philippines, Brazil, Columbia, Costa Rica, Guatemala, Honduras, Iran, Mexico, Nicaragua, Panama and Spain.

Sea Water Chilling Holds Promise for Wide Benefit

● Sea water chilling, although only indirectly concerned with frozen fish as offered for market, nevertheless it is an element in the field of refrigeration, and one which holds abundant promise as a contributor to building more and broader consumer use of fish by the maintenance of original freshness and superior quality.

While most widely applied to cannery tenders collecting and carrying fish for canning, or to packers devoted to the same activity for subsequent curing and freezing, 1957 produced definite advances in the application of this method of fish refrigeration within the fleet which makes the catch.

Halibut vessels, trollers, and to some extent trawlers, have found that the use of chilled sea water to refrigerate their fish immediately they are brought aboard saves largely in labor and enables them to fish days longer and still land their catches in superior condition in contrast with fish which have been packed in crushed ice.

COLUMBIA RIVER FROZEN FISH PACKS

YEAR	(Pounds)						YEAR
	Halibut	Salmon	Steelhead & Fillets	Sablefish	Miscellaneous	TOTAL	
1928	..	326,541	1,156,598	30,000	102,188	1,615,327	1928
1929	24,000	607,483	1,544,779	78,000	233,527	2,487,789	1929
1930	14,700	374,322	1,322,737	...	547,006	2,258,765	1930
1931	4,699	392,581	1,311,033	35,600	559,993	2,303,906	1931
1932	. .	733,234	538,795	10,000	54,427	1,336,456	1932
1933	75,000	886,789	859,563	. .	153,834	1,975,186	1933
1934	199,362	489,183	959,916	49,620	154,765	1,852,846	1934
1935	161,827	943,442	461,847	60,494	243,934	1,871,544	1935
1936	48,818	178,922	629,896	117,624	123,920	1,099,182	1936
1937	25,000	391,000	520,996	35,000	61,253	1,033,249	1937
1938	211,350	207,478	465,909	118,465	119,594	1,122,796	1938
1939	252,692	607,100	352,884	135,347	243,600	1,591,623	1939
1940	553,269	267,370	33,573	98,642	253,634	1,206,488	1940
1941	602,210	178,498	1,628	118,120	761,013	1,661,469	1941
1942	216,684	563,780	222,684	186,710	1,556,008	2,745,866	1942
1943	161,452	956,719	3,958,405	359,050	2,311,503	7,747,129	1943
1944	628,285	1,917,542	5,733,930	178,742	758,745	9,217,244	1944
1945	506,242	2,655,787	2,176,400	270,634	8,670,915	14,279,978	1945
1946	555,884	4,373,849	4,511,986	416,003	3,147,126	13,004,848	1946
1947	618,266	1,272,508	1,681,488	60,786	985,697	4,618,745	1947
1948	410,091	1,187,802	4,241,705	329,857	.	6,169,455	1948
1949	324,527	458,280	2,567,863	289,205	121,994	3,761,869	1949
1950	417,651	483,068	3,382,682	63,081	333,117	4,679,599	1950
1951	291,936	735,305	3,199,153	189,694	124,761	4,540,849	1951
1952	219,223	1,157,484	3,827,761	166,072	136,084	5,506,624	1952
1953	389,483	630,630	2,382,420	204,842	676,081	4,283,456	1953
1954	864,352	788,963	1,672,109	154,456	210,124	3,690,004	1954
1955	276,224	554,345	1,121,886	118,000	123,275	2,193,730	1955
1956	450,762	1,790,544	1,290,170	203,583	288,374	4,023,433	1956
1957	871,000	793,000	2,023,000	302,180	313,000	4,302,180	1957

NOTE:- Since 1942 Steelheads have been combined with Salmon. Figures given in this column for years after 1942 cover quantities of frozen fillets of all varieties of fish reported. Data in this table based on reports of principals and custom freezers to this journal. Data are for food fish only and do not include fish frozen for bait or animal food; nor for subsequent canning. Halibut flitches are included under fillets.

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Demand at Peak As Supply Dips Low

- Sharp decline in production of mild cured salmon in 1957 carried supply to the point of inadequacy. With the exception of the wartime year 1943, the 1957 pack of 6,018 tierces was the lowest in the industry's history.

This condition was intensified by a re-awakening of the European demand, with West Germany and the Scandinavian countries anxious to buy. Some export trading was consummated, but far less than could have passed had the supply been sufficient.

The 1957 production, just above 6,000 tierces, with perhaps 100 Silvers, was about 1,100 tierces below the year before; and a good 5,200 tierces below the surprising 11,200 tierces which 1955 cured.

- California, which accounted for much of the big bulge in 1955, was responsible in large degree for the decline of 1957, when the splitters would gladly have had a couple of thousand more tierces than they were able to get.

Unaccountably, California was short in Chinook catch from the sea and Sacramento. The run which had been building up for a number of years in spite of the heavy drain of a growing sports fishery, plummeted sharply to leave the troll fleet hungry and gravely concerned for the future.

- Washington, British Columbia and Alaska followed close on the pattern of previous years. Alaska actually increased its pack by almost 400 tierces, partly due to step-up in effort after it became apparent that California was going to be far short of expectations.

Puget Sound splitting was right in line with the mean of recent years; nothing spectacular, but a good pack were above 2,000 tierces.

- Silvers were sought in the fall when the shortage of Kings became evident, and about 100 tierces were cured; but production of this variety was interrupted when the Alaska run suddenly dropped off much earlier than usual.

- Export demand was encouraging, but it came at a time when the supply was inadequate for the needs of the domestic market. Thus the European buyers were generally disappointed in their efforts to resume business at a level which has not been matched since World War II.

- There was every reason to believe that the smoking trade used frozen salmon to as large a degree—and perhaps larger—than in previous years. This was stimulated by the shortage of mild cured fish; and perhaps the demand for freezing cut materially into the supply available for the tiercing trade.

- Certainly the packaging and merchandising of smoked salmon advanced to new and higher ground in 1957.

1957 - MILD CURED SALMON - 1957

Company	Location	Tierces (825 lbs. Net)
ALASKA		
Booth Fisheries Corporation	Alaska points	47
Farwest Wrangell Company	Wrangell	144
Halibut Producers Cooperative	S.E. Alaska	491
Alaska Coast Fisheries	Juneau	26
Kayler-Dahl Fish Company	Petersburg	100
McCallum-Legaz Fish Co.	Sitka	32
New England Fish Company	Alaska points	293
Northern Products Corporation	Alaska points	532
Oxenberg Bros.	Alaska points	20
Seldovia Bay Packing Co.	Seldovia	42
Seaboard Fisheries	Sitka	53
Vita Food Products	Alaska points	349
Washington Fish & Oyster Co.	Ketchikan	43
Winz Fish Products Co.	S.E. Alaska	125
Yukon River	West. Alaska	88
TOTAL ALASKA		2,385
BRITISH COLUMBIA		
British Columbia Packers	All stations	186
Canadian Fishing Company	All stations	17
Fishermen's Cooperative Federation	Prince Rupert	136
	Vancouver	90
Seafood Packers	B.C. points	104
TOTAL BRITISH COLUMBIA		533
PUGET SOUND		
Booth Fisheries Corporation	Seattle	93
Eardley Fisheries Company	Seattle	514
Everett Fish Company	Everett	5
Halibut Producers Cooperative	Seattle	186
McCallum-Legaz Fish Company	Seattle	151
New England Fish Company	Puget Sound	161
Northern Products Corporation	Seattle	458
Northwest Fisheries	Seattle	25
San Juan Fishing & Packing Co.	Seattle	181
Seaport Fish Company	Seattle	190
Sebastian-Stuart Fish Co.	Seattle	30
Washington Fish & Oyster Co.	Seattle	380
TOTAL PUGET SOUND		2,374
COLUMBIA RIVER		
Columbia River Packers Assn.	Astoria	31
New England Fish Company	Oregon points	66
TOTAL OREGON		97
CALIFORNIA		
Halibut Producers Cooperative	Calif. points	47
Lazio Fish Co., Tom,	Eureka	72
Miscellaneous	Calif. points	510
TOTAL CALIFORNIA		629
GRAND TOTAL PACIFIC COAST		6,018

NOTE:- Data includes Silvers to a reported total of 81 tierces. The pack of this species actually was as much as 100 tierces all of which are included in the figures in this table.

Landings of Fish on the Oregon Side of the Columbia River

MONTH	SALMON					STURGEON		SHAD	SMELT	TOTAL Poundage
	Chinook	Steelhead	Blueback	Silver	Chum	White	Green			
1956										
October	21,235	8,363		170,680	11,400	9,140	440	29	...	221,287
November	1,630	34,056	...	53,612	10,055	7,417	...	11	...	106,781
December	...	...	...	...	...	...	...	...	...	...
1957										
January	...	...	...	...	...	...	...	...	2,795	2,795
February	28,295	42,489	...	50	...	24,520	...	97,344	...	192,698
March	4,317	3,097	...	...	...	509	...	67,347	...	75,270
April	22,145	12	...	...	...	1,072	...	...	...	23,229
May	1,136,523	14,250	...	...	...	45,404	12,852	22,166	...	1,231,195
June	541,237	84,332	119,758	...	...	19,869	8,193	48,862	...	822,251
July	261,577	283,666	69,142	12	8	18,261	10,607	10,891	...	654,164
August	1,512,880	88,057	84	8,151	...	45,832	34,382	7	...	1,689,393
September	175,378	15,384	...	99,746	417	11,561	1,258	...	...	303,744
TOTAL	3,705 217	573,706	188,984	332,251	21,880	183,585	67,732	246,657	2,795	5,322,807

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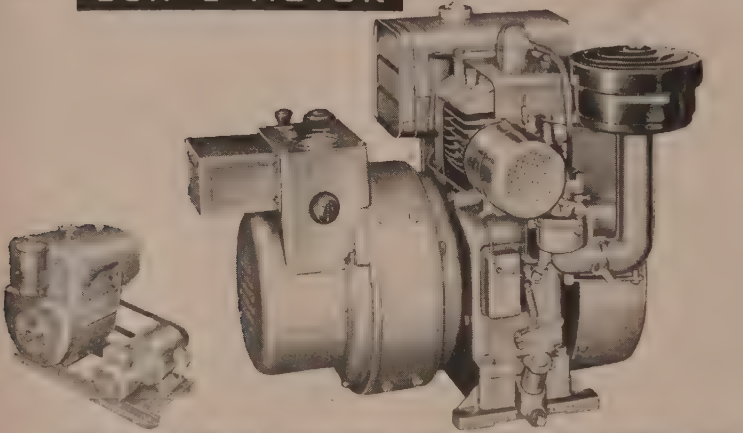

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Employment of impermeable films and inert gases for packaging sliced smoked salmon gave the delicacy added outlets and standing in specialty stores of the highest class, where its attractive appearance and improved shelf life were most appreciated.

Possibilities of this type of improved packaging appear to promise much for the marketing of smoked salmon, which in the past decade has already made long gains in rising from the unsliced side in the fish market or delicatessen to the unlimited possibilities of the supermarkets' refrigerated specialties cases.

Mylar, crystal polyethylene, laminated films, saran and such special films with their complete impermeability to oil or gas are doing much to expand the market for smoked salmon far beyond the limits anticipated a few years ago. Moreover, they offer promise for further growth through their ability to display the product to best advantage which protecting it against deterioration and dehydration over a reasonable "shelf" life in the refrigerated cabinet.

While the export business in mild cured salmon to Europe showed some pick-up in 1957, it continued to labor under one handicap for which there seemed little excuse. This is the embargo against mild cured salmon entering Denmark, a country which formerly was an active consumer; and which today ships substantial quantities of frozen trout to the American market along the Atlantic seaboard.

Norway has the same policy toward American mild cured salmon as Denmark, but Sweden permits limited imports. Germany is sparking the recent revival in this trade.

Actually a Danish house played an important part in leading the mild curing business to Alaska just before World War I when Vendsyssel Packing Co., the American subsidiary of an old Danish firm still active in salmon, established its operations in Southeast Alaska.

MILD CURE

● Troll salmon marketing facilities of the Pacific Northwest will be brought to a new level of completeness and effectiveness with the opening of the 1958 season as result of the construction of a receiving and processing station of the Fishermen's Cooperative Association of Seattle at Charleston, Ore., at the entrance to Coos Bay, on the Southern Oregon coast a short distance north of the important Cape Blanco trolling area.

This station, which will cost $200,000, is about 100 miles south of the

PACIFIC MILD CURED SALMON PACK

(IN TIERCES OF 825 LBS. NET WEIGHT)

YEAR	Alaska	British Columbia	Puget Sound	Columbia River	Oregon Coast	California Coast	Sacramento River	Kamchatka	Recapitulation		ANNUAL TOTALS	YEAR
									Kings	Silvers		
1900	. .	.	.	1,275	. . .	. . .	950	. . .		. . .	2,225	1900
1901	67	.	600	3,000	. . .	. . .	3,100	. . .		. . .	6,767	1901
1902	67		425	4,213	188	504	2,325	. . .		. . .	7,722	1902
1903	8		824	6,725		354	3,600	.		. .	11,511	1903
1904	34	. .	1,250	9,088	. . .	448	4,719	. . .		.	15,539	1904
1905	189	1,175	3,000	9,805	415	310	2,979	. . .		. . .	17,873	1905
1906	1,126	957		8,000	740	685	2,177	. . .		. .	13,685	1906
1907	1,657	1,993	2,060	6,070	860	722	4,102	. . .		. . .	17,464	1907
1908	1,378	1,060	. .	4,960	. .	252	3,243	. . .		. . .	10,893	1908
1909	2,292	1,560	2,109	5,540	664	991	5,111	. .		. .	18,267	1909
1910	3,357	1,638	2,435	7,922	1,465	75	5,516	. . .		. . .	22,408	1910
1911	3,164	2,006	2,745	8,185	1,377	770	2,011	. . .		. . .	19,758	1911
1912	5,245	1,380	3,013	5,824	3,479	100	3,274	. . .		. .	22,315	1912
1913	7,440	2,125	3,631	5,746	2,681	550	4,789	. . .		. . .	26,952	1913
1914	3,872	3,182	1,934	5,205	457	1,476	1,829	. .		. . .	17,955	1914
1915	2,966	1,119	2,235	4,078	333	945	1,630	. . .		. . .	13,306	1915
1916	4,475	767	1,755	4,656	194	1,069	650	. . .		. .	13,566	1916
1917	2,955	429	1,063	1,886	. .	300	1,508	. . .		. . .	8,181	1917
1918	4,234	729	1,093	1,804	275	721	1,913	. . .		. . .	9,869	1918
1919	6,803	1,173	2,423	3,328	148	2,381	2,355	. . .		. . .	18,611	1919
1920	2,770	1,116	2,036	2,275	102	1,793	1,345	. . .		. . .	11,437	1920
1921	3,966	1,076	4,517	3,051	160	1,251	812	. . .		. . .	14,833	1921
1922	5,158	2,253	4,727	1,621	162	550	1,195	. . .		. . .	15,666	1922
1923	4,075	1,819	5,799	1,769	176	1,229	606	. . .	15,129	344	15,473	1923
1924	6,069	2,969	6,409	2,320	286	2,624	1,291	. . .	21,476	492	21,968	1924
1925	7,119	3,098	5,600	2,746	547	2,241	1,523	500	22,530	844	23,374	1925
1926	5,781	2,183	4,087	1,055	1,205	929	1,767	650	16,585	1,072	17,657	1926
1927	8,982	2,689	5,160	951	918	927	1,125	854	19,390	2,216	21,606	1927
1928	5,784	2,676	4,304	1,305	2,163	1,686	179	783	14,051	4,046	18,880	1928
1929	5,477	3,016	4,311	1,969	1,787	1,160	155	1,083	15,749	3,209	18,958	1929
1930	5,331	2,630	4,361	1,068	102	1,184	124	2,144	16,049	895	16,944	1930
1931	4,123	1,083	5,700	1,251	372	1,027	164	712	13,862	570	14,432	1931
1932	5,560	1,542	3,650	2,012	1,119	752	294	640	13,443	2,126	15,569	1932
1933	4,852	3,097	3,527	2,431	660	1,392	37	340	15,295	1,041	16,336	1933
1934	4,908	4,657	3,882	1,855	270	1,572	5	776	16,960	965	17,925	1934
1935	5,487	2,665	3,563	1,730	210	2,090	439	670	15,450	1,404	16,854	1935
1936	5,222	1,642	4,897	1,138	68	1,939	366	840	15,611	495	16,106	1936
1937	6,373	4,055	2,775	604	. . .	1,026	49	778	15,552	108	15,660	1937
1938	7,786	3,128	3,657	1,292	387	627	945	787	16,451	2,158	18,609	1938
1939	7,724	2,802	2,937	501	20	417	119	600	14,905	224	15,129	1939
1940	5,210	693	3,531	33	. . .	711	308	11	10,283	714	10,497	1940
1941	8,862	1,474	3,561	229	. .	360	15	. .	14,174	302	14,501	1941
1942	6,748	1,055	2,494	20	. . .	. . .	. .	. .	10,241	76	10,317	1942
1943	3,869	811	1,022	21	. . .	166	. . .	. .	5,278	611	5,889	1943
1944	3,518	2,019	959	16	. . .	1,259	1,329	. . .	7,969	*1,050	9,100	1944
1945	7,763	1,209	1,790	159	.	*1,065	1,570	. . .	10,843	*3,200	13,556	1945
1946	6,824	1,975	2,170	96	. . .	. .	§2,764	. . .	13,216	613	13,829	1946
1947	5,919	1,675	2,129	99	. . .	§	919	. .	10,631	110	10,741	1947
1948	5,076	1,025	2,282	77	. . .	. .	. .	. . .	8,490	36	8,456	1948
1949	4,449	1,177	2,049	86	. . .	891	. . .	. . .	8,625	27	8,652	1949
1950	4,809	889	3,264	90	. . .	1,214	. .	. . .	10,109	157	10,266	1950
1951	4,671	897	2,436	20	. .	1,200	. . .	. . .	9,150	74	9,224	1951
1952	3,489	752	2,318	4	.	493	. . .	. . .	7,052	. . .	7,052	1952
1953	4,484	742	2,688	30	. . .	1,033	. . .	. . .	9,209	75	8,977	1953
1954	4,003	645	2,155	. .	.	1,010	. . .	. . .	7,500	313	7,813	1954
1955	3,375	678	2,796	189	. .	4,200	.	. . .	11,238	**	11,238	1955
1956	2,002	688	2,267	131	.	2,075	.	. . .	7,416	***	7,163	1956
1957	2,385	533	2,374	97	. .	529	100	. .	6,018	***	6,018	1957

NOTE:- Mild cured Falls not included.
§Segregation as to district not available

*Estimated segregation. In 1945 the Silver category includes 200 tierces of Sockeyes.
**Species segregation not available.
***Approximately 100 tierces of Silvers included with Kings.

Annual OREGON TROLL SALMON LANDINGS

(Pounds)

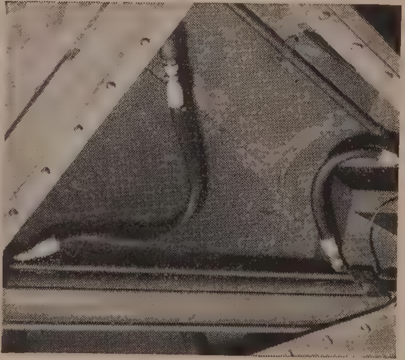
Year	Columbia River*		Coastal Ports		State Total		Oregon Total Both	Year
	Chinook	Silver	Chinook	Silver	Chinook	Silver		
1942	323,769	100,843	320,766	926,936	644,535	1,027,779	1,672,314	1942
1943	157,814	125,618	247,349	534,813	405,163	660,431	1,065,594	1943
1944	457,721	286,637	815,254	1,184,605	1,272,975	1,471,242	2,744,217	1944
1945	1,012,524	231,774	979,105	950,614	1,991,629	1,183,388	3,174,017	1945
1946	1,063,943	478,100	1,522,452	935,182	2,586,395	1,413,381	3,999,776	1946
1947	626,276	598,735	1,948,432	1,278,140	2,574,708	1,876,875	4,451,583	1947
1948	532,788	409,015	984,613	932,557	1,517,401	1,341,572	2,858,973	1948
1949	223,938	163,380	1,136,868	1,126,669	1,360,806	1,290,049	2,650,855	1949
1950	291,386	365,540	731,395	883,407	1,022,781	1,248,947	2,271,728	1950
1951	464,973	589,697	2,135,752	1,688,096	2,600,725	2,277,793	4,878,518	1951
1952	821,404	532,224	2,262,898	2,242,232	3,084,300	2,774,456	5,858,758	1952
1953	518,228	368,730	1,404,483	1,937,542	1,922,711	2,306,272	4,228,983	1953
1954	520,396	243,107	3,277,655	999,696	3,798,051	1,242,303	5,040,854	1954
1955	522,821	344,542	3,058,350	1,854,341	3,581,171	2,198,883	5,780,054	1955
1956	476,058	477,069	4,089,685	2,894,208	4,565,743	3,371,277	7,937,020	1956
1957**	177,651	366,481	2,797,264	3,399,416	2,974,915	3,765,897	6,740,812	1957

*Columbia River also received 21,556 Pink Salmon. **Total for first 9 months only.

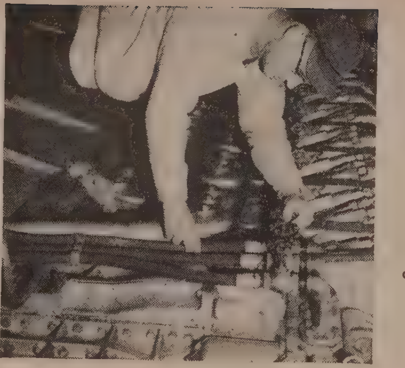
Aeroquip Flexible Piping Resists Corrosion . . . Cuts Installation Time

Because they overcome alignment and routing problems, Aeroquip Marine Hose Lines with Reusable Fittings install in a fraction of the time required for rigid piping. They include hose styles that withstand vibration, extreme heat and cold, are fire resistant, non-corrosive. Below are only a few examples showing how they are used advantageously for hull and engine piping. For complete information, see the Aeroquip Distributor listed in the Yellow Pages of your Telephone Directory or write us.

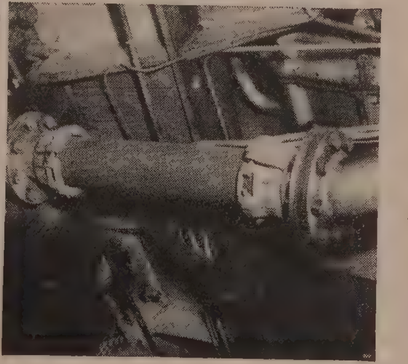
Aeroquip 2″ Hose Lines are used for water lines on an auxiliary engine that drives a generator aboard a tug.



Dependable hydraulic lines to tug steering rams were made from Aeroquip ¾″ 1509 Rubber-Covered High Pressure Hose.



Diesel fuel lines on this engine are Aeroquip. Hose lines are also available for LP-Gas, Freon 12, air, steam, salt and drinking water.



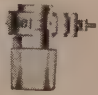
On this tug, an alignment problem was overcome when Aeroquip Flexible Piping was used to complete a 4″ oil line.

Swivel Nut Fittings

Segment-Type Flange Fittings

Marine Hose for Hull and Engine Piping

Elbow Flange Fittings



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troll salmon center at Newport, Ore and about 140 miles north of Eurek Calif. Provision of adequate facilitie at Coos Bay will fill a gap on the Oregon coast which has long cost troller money because of the necessity c making the long run north or sout from Cape Blanco to a market wit sufficient facilities to provide pric competition. The Coos Bay statio will make it possible for the fishermen to make a substantial saving o each pound of fish sold by permittin handling in quantity where shippin costs are lower.

Sales of fish delivered to Coos Ba will be handled through the cooperative's Seattle exchange, but buyers ma direct the FCA to make the shipmen direct from Coos Bay, thus saving th time and cost of assembling the fis

SALMON FREEZING IN CANADA BY MONTHS

						(Pounds)							
Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL
1943	42,410	76,821	1,722	1,410	46,691	579,333	1,289,797	1,842,880	3,306,198	4,693,989	2,738,670	194,089	14,814,010
1944	190,468	366,346	199,226	34,334	35,166	799,534	1,736,542	2,902,804	3,602,202	3,489,092	490,764	216,862	14,063,340
1945	419,230	95,244	360,661	19,945	158,305	822,475	822,475	3,789,008	4,264,479	[illegible],264,479	1,313,675	401,122	16,731,098
1946	18,904	520,509	902,832	43,216	114,952	1,213,867	2,131,929	3,098,060	3,709,790	6,134,139	3,262,982	421,969	21,573,149
1947	271,572	221,343	270,066	41,620	342,709	921,265	2,328,428	2,659,952	2,628,493	6,477,323	1,873,407	48,000	18,084,178
1948	443,000	147,000	7,000	15,000	243,000	1,498,000	2,237,000	2,626,000	2,771,000	10,387,000	2,009,000	291,000	22,674,000
1949	157,000	22,000	33,000	107,000	242,000	1,935,000	2,961,000	4,565,000	3,917,000	7,362,000	1,463,000	24,000	22,788,000
1950	4,000	22,000	22,000	5,000	227,000	1,224,000	2,462,000	5,246,000	8,678,000	7,149,000	702,000	8,000	25,740,000
1951	25,000	72,000	2,000	11,000	229,000	1,114,000	2,677,000	4,329,000	4,690,000	6,989,000	1,311,000	16,000	21,465,000
1952	10,000	29,000	100,000	80,000	395,000	1,804,000	3,227,000	5,244,000	3,034,000	2,151,000	1,508,000	18,000	17,600,000
1953	28,000	72,000	30,000	86,000	349,000	1,512,000	2,934,000	4,749,000	5,149,000	6,872,000	665,000	38,000	17,149,000
1954	15,000	70,000	353,000	29,000	204,000	709,000	3,138,000	2,932,000	4,333,000	5,051,000	512,000	28,000	17,374,000
1955	53,000	32,000	47,000	41,000	107,000	914,000	3,579,000	4,165,000	2,850,000	1,218,000	148,000	30,000	13,184,000
1956	33,000	23,000	4,000	16,000	321,000	1,370,000	3,598,000	4,907,000	2,706,000	2,366,000	148,000	33,000	15,525,000
1957	50,000	18,000	30,000	60,000	222,000	1,378,000	3,154,000	3,155,000	1,460,000	*	*	*	9,527,000

NOTE: - All figures in accordance with latest reports. *Data not available. Source: Dominion Bureau of Statistics, Dept. of Trade & Commerce

MILD CURE

at Seattle in cases where quantities are such that cars or truck loads can be made up at the receiving station.

The structure, which is being built on property of the Port of Coos Bay in the protected entrance of South Slough, just inside Coos Bay, will have two stories and will be served by two electric fish hoists, three heavy-duty refrigeration compressors, and flake ice machines.

The fish receiving floor on the lower level will have a sharp freezer, shelf type; and a cold storage room with two-level temperatures so it may be held just above freezing for fresh fish, or at zero for frozen.

On the upper floor there is a frozen fish cold storage room and also a large ice storage room with capacity for sev-

ALASKA FROZEN FISH PACKS

(Pounds)

YEAR	Halibut	Salmon	Steelhead & Fillets	Sablefish	Miscellaneous	TOTAL	YEAR
1928	9,328,837	7,275,009	4,105	623,857	161,332	17,393,140	1928
1929	11,789,477	5,819,643	3,000	514,405	268,857	18,395,382	1929
1930	11,859,772	6,217,498	...	511,249	168,870	18,757,389	1930
1931	6,641,793	5,071,593	4,431	254,856	594,392	12,567,065	1931
1932	2,332,728	5,058,857	1,275	51,284	61,461	7,505,605	1932
1933	5,851,556	4,102,999	3,747	91,066	93,841	10,143,209	1933
1934	6,133,142	5,534,916	27,272	167,725	155,453	12,018,508	1934
1935	5,021,708	4,662,272	7,600	633,412	221,066	10,546,058	1935
1936	7,287,861	5,284,030	24,091	834,140	88,705	13,518,827	1936
1937	7,465,551	5,794,466	2,500	1,924,817	305,149	15,492,483	1937
1938	6,904,640	7,918,897	4,274	773,787	68,305	15,669,903	1938
1939	6,389,488	4,783,751	2,465	1,525,600	280,794	12,982,098	1939
1940	8,310,553	6,304,064	11,413	1,824,532	682,721	17,133,283	1940
1941	7,564,940	6,119,050	...	1,720,977	924,420	16,329,387	1941
1942	8,720,056	7,908,717	8,606	4,851,974	361,554	21,850,907	1942
1943	11,068,724	9,114,694	...	3,986,438	825,505	24,995,361	1943
1944	19,214,203	10,753,715	...	5,413,503	1,892,846	37,274,267	1944
1945	19,353,649	13,374,086	...	5,955,388	3,396,849	42,079,972	1945
1946	14,966,616	12,036,956	30,000	4,519,989	2,075,530	33,629,091	1946
1947	20,638,301	10,197,755	4,597	886,535	383,473	32,110,661	1947
1948	26,020,134	9,582,232	165,370	5,065,056	5,290	40,838,082	1948
1949	20,914,221	12,222,337	1,309	3,772,851	271,901	37,182,619	1949
1950	25,625,940	8,467,426	5,113	566,965	98,409	34,763,853	1950
1951	19,577,948	8,780,110	6,988	3,241,556	820,473	32,427,075	1951
1952	17,341,747	5,327,279	8,977	988,520	205,955	23,872,478	1952
1953	19,727,501	6,399,247	46,675	2,599,418	730,465	29,503,306	1953
1954	20,987,363	9,341,468	57,468	3,072,158	203,706	33,662,163	1954
1955	16,597,154	4,459,926	328,613	2,389,290	102,615	23,877,598	1955
1956	21,718,748	8,603,212	3,818	1,919,865	77,455	32,323,098	1956
1957	13,710,555	6,890,597	266,483	2,803,496	19,744	23,690,875	1957

NOTE:- Since 1942 Steelheads have been combined with Salmon. Figures given in this column for years after 1942 cover the quantities of frozen fillets of all reported. Data in this table based on individual reports of packers and custom cold storages to this journal. Data are for food fish only and do not include fish frozen for bait or for animal food, nor are fish frozen for subsequent canning included. Halibut flitches are reported under fillets.

Alaska Troll Salmon Ex-Vessel Prices

(In cents per pound)

	1957			
Port and Month	KING			SILVER
	Large	Small	White	
JUNEAU:				
May	39	17-18	27	-
June	39-42	18-22	27-35	-
July	42	22	35	17-22
August	44-46	23	36	24-25
September	46-50	23	36	25
KETCHIKAN:				
May	41	20	29	-
June	41-43	20-22	29-35	-
July	43-45	22	35	17-25
August	45-46	22-23	35-36	23-27
September	46-50	23	36	23-27
PELICAN:				
May	39	18	27	-
June	39-42	18-22	27-35	-
July	42-44	22	35	17-22
August	44-46	22-23	35-36	22-25
September	46-50	23	36	24-26
PETERSBURG:				
May	40	19	28	-
June	40-42	19-22	28-35	-
July	42-44	22	35	17-22
August	44-46	22-23	35-36	22-26
September	46-50	23	36	24
SITKA:				
May	39	18	27	-
June	39-42	18-22	27-35	-
July	42-44	22	35	17-22
August	44-50	22-23	35-36	23-25
September	46-55	23	36	23-26
WRANGELL:				
May	40	19	28	
June	41-42	17-22	28-35	-
July	42-44	22	35	18-22
August	44-46	22-23	35-36	22-25
September	46-50	23	36	24

	1956			
Port and Month	KING			SILVER
	Large	Small	White	
JUNEAU:				
May	38	24	27	-
June	38-40	24	27	-
July	40-45	24-27	27-30	20-27
August	45-48	27-30	30-33	28-31
September	46	30-32	33	31
KETCHIKAN:				
May	40	25	28	-
June	40	25	28	-
July	41-46	25-28	28-31	21-28
August	46-50	28-32	31-35	28-33
September	50	32	35	
PELICAN:				
May	38	24	27	-
June	38-40	24	27	-
July	40-45	24-27	27-30	20-27
August	46-48	27-30	30-33	27-31
September	48	30	33	31-32
PETERSBURG:				
May	39	24	27	-
June	39-40	24	27	-
July	40-46	24-27	27-29	21-27
August	46-50	27-32	29-35	27-32
September	50	32	35	32
SITKA:				
May	38	24	27	-
June	38-40	24	27	-
July	40-45	24-27	27-30	20-27
August	45-48	27-30	30-33	28-31
September	48-50	32	35	31
WRANGELL:				
May	39	24	27	-
June	39-40	24-25	27-28	-
July	40-48	25-29	28-30	21-27
August	46-50	27-32	31-35	27-32
September	50	32	35	32

SOURCE: - U. S. Market News Service.

Miss Dolphina, the "Girl in the Goldfish Bowl", Bimbo's 365 Theatre Restaurant, San Francisco, and Miss Seafood of 1957 and whale caught by Hunter & Foland whale killer, featured in San Francisco Sea Food Week.

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eral hundred tons of flake ice. Frozen storage capacity of the two rooms is approximately 240,000 lbs.

As recently as 1943, American deliveries in Canada exceeded 12,000,000 lbs., with only 138,000 lbs. of Canadian halibut entering United States ports.

Halibut Freezing Reduced

● While the reduction of the total catch of halibut in 1957 by 5.25 million pounds from the year before naturally would be expected to be reflected in a reduced into-freezer movement during the year, reduced landings alone cannot account for the 11.1-million-lb. reduction in the amount of halibut frozen in 1957.

This sharp cut-back in the frozen pack is attributed to the longer fresh halibut selling season resulting from the long fishing period, with its obvious corollary of a shorter selling period for frozen. Even when the effect of the extended season is accepted, the severe reduction in freezing is not accounted for until allowance is made for the stimulus imparted to fresh halibut sales by the lower prices prevailing in 1957, with their 21.5 and 18.2c averages against the averages of 26.9 and 23.2c which prevailed in 1956.

SALMON ESCAPEMENT OVER BONNEVILLE DAM

(In numbers of fish as recorded by U.S. Engineers)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
CHINOOK													
1940	...	...	504	37,253	28,621	7,028	14,938	58,643	240,515	3,765	287	34	391,588
1941	4	...	1,360	51,501	19,445	7,013	9,395	12,590	351,967	7,179	866	138	461,458
1942	1	15	34	9,506	30,915	11,816	12,821	27,581	305,935	4,485	639	190	403,938
1943	11	6	43	12,172	53,268	5,440	8,044	28,985	201,414	3,354	365	21	313,123
1944	1	2	65	15,670	15,127	4,363	8,241	55,468	139,254	2,388	164	20	240,763
1945	6	4	81	17,148	26,276	11,293	16,327	32,254	189,675	4,281	137	6	297,488
1946	1	2	25	14,179	53,313	30,051	20,960	45,421	277,075	4,521	170	25	445,743
1947	...	2	141	83,520	49,899	25,502	13,358	43,062	260,385	3,945	526	36	480,376
1948	10	...	251	21,205	20,262	44,137	23,100	35,934	270,238	3,928	467	23	419,555
1949	...	...	5	5,765	44,304	24,232	22,500	41,500	137,599	1,571	215	6	277,697
1950	...	...	21	6,630	50,638	16,667	32,937	40,462	205,521	4,356	143	...	357,375
1951	...	...	32	28,801	86,055	54,889	24,394	33,785	97,131	6,489	212	...	331,788
1952	**	**	255	8,130	107,807	62,491	21,800	82,290	135,053	2,576	477	**	420,879
1953	**	**	1,254	126,450	42,583	27,228	30,593	27,398	75,145	1,495	333	**	332,479
1954	**	**	657	82,877	51,230	46,801	32,596	24,969	80,426	1,189	200	**	320,945
1955	**	**	1,391	84,436	85,769	45,502	37,437	32,833	70,558	1,803	124	...	359,853
1956	**	**	161	8,850	54,438	64,262	36,938	42,203	92,030	1,854	179	...	300,915
1957	**	**	328	90,330	46,365	104,243	30,790	34,829	95,457	1,352	175	**	403,869
STEELHEAD													
1940	5	96	1,688	4,125	998	4,489	61,175	46,071	64,377	1,786	292	59	185,161
1941	37	76	1,641	6,392	1,518	994	21,940	29,600	50,542	3,980	1,063	304	118,087
1942	4	37	256	3,642	4,159	1,588	19,905	41,973	76,622	2,411	566	182	151,345
1943	14	18	654	3,374	4,698	1,564	7,755	29,894	41,051	2,444	573	92	92,131
1944	50	157	1,019	6,142	2,227	1,169	21,868	24,508	35,907	6,129	1,119	226	100,521
1945	1,003	1,078	3,066	4,685	1,557	1,109	24,600	40,483	40,194	1,925	302	142	120,144
1946	63	551	3,040	9,839	5,481	3,265	20,559	58,356	38,296	2,067	262	769	142,548
1947	197	321	1,968	6,889	2,025	1,595	28,134	40,819	50,025	2,905	443	113	135,434
1948	154	119	1,631	4,473	1,170	1,895	33,191	53,621	40,609	1,742	381	76	139,062
1949	1	...	1,689	3,293	1,712	1,264	34,314	54,281	20,786	1,161	686	98	119,285
1950	13	...	1,156	4,537	1,667	691	25,142	53,904	24,226	1,932	811	...	114,079
1951	...	...	375	2,338	1,568	5,187	74,980	39,712	15,357	947	225	...	140,689
1952	**	**	278	1,248	1,751	8,202	118,110	79,735	48,293	2,735	638	**	
1953	**	**	1,310	5,308	1,456	5,314	106,712	64,006	36,107	2,797	905	**	223,915
1954	**	**	679	5,511	1,571	6,115	59,443	65,234	34,941	2,209	551	**	176,254
1955	**	**	1,006	2,100	1,149	2,418	79,124	84,746	24,239	3,367	268	...	198,417
1956	**	**	1,409	2,718	1,582	3,122	48,306	47,148	23,343	2,846	635	...	131,109
1957	**	**	926	2,081	771	8,434	66,738	34,915	24,029	1,069	231	**	139,194
SILVERS													
1940	3	...	...	...	...	...	...	1,451	10,212	213	33	5	11,917
1941	2	...	...	...	...	...	...	1,317	16,061	369	160	2	17,911
1942	...	...	...	...	...	...	...	1,193	11,061	147	...	...	12,401
1943	...	...	...	...	...	...	...	762	1,676	89	20	...	2,547
1944	...	...	...	...	...	...	...	1,052	3,022	103	29	2	4,208
1945	...	...	...	...	...	...	2	239	533	16	...	1	791
1946	...	10	4	...	...	...	22	227	3,609	1	...	24	3,897
1947	12	2	1	...	...	...	...	217	10,928	10	3	1	11,174
1948	1	...	...	...	...	...	11	158	3,893	10	3	5	5,081
1949	...	...	...	...	...	...	17	270	703	5	8	1	1,004
1950	...	...	...	...	...	...	...	1,572	8,545	36	...	...	10,153
1951	...	...	...	...	...	...	...	197	4,773	225	6	...	5,201
1952	**	**	...	...	...	...	10	2,581	5,131	22	24	**	7,768
1953	**	**	...	...	...	...	1	7,094	5,896	22	11	**	13,018
1954	**	**	...	...	...	...	...	668	3,319	74	1	**	4,062
1955	**	**	...	...	...	...	...	443	3,188	94	...	...	3,725
1956	**	**	...	...	...	...	...	1,158	4,879	83	...	...	6,120
1957	**	**	...	...	...	...	...	1,564	3,049	101	530	**	4,775
BLUEBACK													
1940	...	...	...	...	206	59,639	85,885	3,063	11	1	...	...	148,805
1941	...	...	...	299	1,052	23,536	39,193	1,615	50	...	...	...	65,745
1942	...	...	...	...	13	12,624	41,301	1,477	60	...	...	...	55,475
1943	...	...	...	...	9	4,525	33,613	1,697	1	...	...	...	39,845
1944	...	...	1	...	16	3,098	11,171	659	126	...	...	...	15,071
1945	...	...	10	51	521	1,507	6,903	498	10	1	...	...	9,501
1946	...	...	...	9	67	7,805	64,704	1,746	21	2	...	...	74,354
1947	...	...	...	...	5	59,378	108,175	3,564	15	1	...	1	171,139
1948	...	...	...	...	...	12,023	117,652	1,849	13	4	...	...	131,541
1949	...	...	...	...	151	9,013	41,619	655	6	...	...	...	51,444
1950	...	...	...	...	...	341	75,784	1,826	42	...	...	...	77,993
1951	...	...	...	...	25	81,045	87,104	1,214	40	...	...	...	169,428
1952	**	**	7	1	3	136,939	47,188	472	34	2	8	**	184,654
1953	**	**	57	27	663	45,711	186,933	1,776	50	2	...	**	235,219
1954	**	**	1	...	13	52,359	76,505	1,212	17	...	...	**	130,107
1955	**	**	...	...	79	21,923	214,860	866	11	9	...	...	237,748
1956	**	**	...	...	10	29,649	125,185	1,564	7	3	...	...	156,418
1957	**	**	...	...	21	38,616	43,938	323	14	3	...	**	82,915

*Data not available. Figures for 1938 are from May 7 to Dec. 31, inclusive.

**Counting suspended during winter months

NOTE: - Escapement of Chums in any quantity occurs only in last 3 months of year; therefore Chums are listed only in historical table, showing yearly totals

1957—Ex-Vessel Landings at Seattle

SPECIES	Pres.	Dec '56	Jan '57	Feb.	March	April	May	June	July	August	Sept	Oct.	Nov	TOTAL
Cod - True	Dr.	4,000	...	...	...	...	...	38,900	...	...	...	...	3,000	45,900
" "	Rd.	133,200	255,800	252,700	370,100	566,600	288,900	239,000	269,700	290,500	226,500	625,800	336,100	3,854,900
Flounder	Rd.	17,800	19,800	25,900	8,800	15,700	16,600	65,900	340,400	46,100	1,100	1,500	40,800	600.400
Sole: English	Rd.	114,500	121,200	208,300	39,800	81,500	41,200	62,200	73,100	33,500	1,800	45,600	207,500	1,030,200
Petrale	Rd.	110,000	608,300	256,000	106,700	149,800	170,700	195,600	53,500	69,100	167,000	128,000	116,600	2,131,300
Unclassified	Rd.	94,000	83,900	43,400	23,000	89,100	220,000	96,900	46,700	49,400	29,900	99,800	51,700	927,800
Halibut No. 1	Dn.	7,900	16,700	...	...	...	3,089,900	2,081,800	1,236,000	1,460,800	479,300	228,100	...	8,600,500
No. 2	Dn.	20,200	25,800	...	...	...	1,698,900	1,283,900	1,141,100	1,131,300	435,500	186,500	...	5,923,200
Canadian	Dn.	...	...	...	...	...	390,400	122,200	153,800	74,700	75,900	...	..	817,000
Lingcod	Dr.	39,800	22,300	23,100	8,000	20,600	22,400	14,300	...	13,000	4,600	8,600	15,600	192,300
"	Rd.	14,600	24,200	25,900	31,400	104,400	73,700	267,400	96,100	105,600	153,800	94,200	102,300	1,093,600
Perch, Pacific Ocean	Rd.	180,900	238,300	172,000	146,700	150,900	326,900	235,800	93,100	179,400	137,300	259,200	191,000	2,311,500
Rockfish	Dr.	...	2,300	300	...	...	9,400	9,100	12,000	21,500	19,900	35,600	. .	110,100
"	Rd.	66,600	141,900	143,200	284,200	167,200	166,800	170,300	172,000	127,200	105,400	208,700	221,800	1,975,300
Sablefish	Dr.	...	1,600	400	1,600	3,000	16,700	41,400	173,200	356,800	852,100	826,400	...	2,273,200
"	Rd.	...	4,900	1,500	3,000	7,900	9,900	4,300	4,000	4,200	4,000	298,100	...	341,800
Salmon: Chinook	Dn.	...	...	...	...	34,300	37,600	56,200	56,500	63,400	26,800	4,000	...	278,800
"	Rd.	...	...	...	...	...	...	...	7,100	...	500	...	...	7,600
Chum	Rd.	...	...	...	...	...	...	...	...	...	100	13,300	13,400	26,800
Pink	Rd.	...	...	...	...	...	...	...	...	11,400	2,900	...	...	14,300
Silver	Dn.	...	...	...	...	...	...	8,600	49,600	27,900	13,600	1,100	...	100,800
"	Rd.	...	...	...	...	..	...	...	...	...	10,400	1,800	1,900	14,100
Tuna - Albacore	Rd.	...	...	...	...	...	...	...	...	...	...	71,800	76,900	148,700
Unclassified		1,200	3,200	1,400	1,700	...	...	...	...	6,000	5,800	1,600	...	20,900
TOTAL		804,700	1,570,200	1,154,100	1,025,000	1,391,000	6,580,000	4,993,800	3,977,900	4,071,800	2,754,200	3,139,700	1,378,600	32,841,000

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U.S. Production of Fish Sticks, by Areas

Area	January - March				April - June				July - September			
	1957		1956		1957		1956		1957		1956	
	Firms	Pounds	Firms	Pounds	Firms	Pounds	Firms	Pounds	Firms	Pounds	Firms	Pounds
Atlantic Coast States	26	11,887,000	27	12,724,000	25	9,557	27	9,080	23	11,001	23	9,318
Interior & Gulf States	4	1,520,000	7	2,284,000	5	948	6	1,242	4	1,217	5	1,250
Pacific Coast States	11	1,279,000	10	1,259,000	11	910	10	902	11	1,076	10	836
TOTAL	41	14,686,000	44	16,267,000	41	11,415	43	11,224	38	13,294	38	11,404

Fish Sticks Reverse Field, Start Comeback

• With 11 plants producing, the three Pacific states in the third quarter of 1957 showed a sharp increase over equivalent period in 1956 in the volume of their production of frozen fish sticks. In this they followed the trend of the dominant East Coast area, which produced more than 10 times as great a weight of fish sticks.

Interestingly, the East Coast plants numbered 23, against 11 on the West Coast, but the average plant produced very much more heavily.

This trend doubtless was due to the fact that the Pacific fish sticks operations generally are relatively small departments of much larger operations.

The interior and Gulf States, with only four plants active, nevertheless run about even with the 11 plants of the Pacific.

U.S. Production of Fish Sticks

(Pounds)

Month	1957			1956	1955	1954	1953
	Cooked	Uncooked	Total				
January	3,774,000	493,000	11,887,000	4,862,000	5,601,000	2,770,600	115,000
February	4,680,000	599,000	1,520,000	5,323,000	5,954,300	3,179,600	133,000
March	4,727,000	413,000	1,279,000	6,082,000	7,393,200	4,003,500	148,000
April	4,024,000	479,000	4,503,000	3,771,000	6,248,700	3,841,100	34,900
May	2,971,000	401,000	3,372,000	3,873,000	5,168,700	3,941,300	21,800
June	3,118,000	422,000	3,540,000	3,580,000	5,687,200	4,381,300	30,800
July	3,372,000	400,000	3,772,000	3,153,000	4,587,200	3,809,700	416,600
August	4,119,000	504,000	4,623,000	4,166,000	4,671,300	4,363,900	454,400
September	4,317,000	582,000	4,899,000	4,085,000	4,702,600	4,271,700	809,500
October	*	*	*	5,063,000	5,355,400	5,637,500	1,434,900
November	*	*	*	4,585,000	5,042,100	4,803,000	1,901,800
December	*	*	*	4,019,000	4,972,100	4,959,200	2,001,200
TOTALS	35,102,000	4,293,000	39,395,000	52,562,000	65,383,900	49,962,400	7,501,900

*Segregation not available for last quarter of the year.

For the first nine months of 1957 fish sticks reversed the downward trend which has been manifest since 1955 and output ran more than a million pounds ahead of the first three-quarters of 1956.

Cooked fish sticks continue to dominate the business.

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1957 - FROZEN FILLETS - 1957

(Pounds)

ITEM	Dec '56	Jan. '57	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Total
WASHINGTON													
Blocks & Slabs	...	3,000	8,000	...	...	...	...	...	1,000	1,000	...	1,000	14,000
Cod	11,000	30,000	49,000	60,000	85,000	74,000	142,000	32,000	62,000	22,000	50,000	93,000	710,000
Halibut	...	...	...	...	...	27,000	45,000	46,000	43,000	8,000	8,000	...	177,000
Lingcod	1,000	2,000	3,000	2,000	14,000	12,000	14,000	28,000	33,000	32,000	6,000	11,000	158,000
Ocean Perch	47,000	5,000	21,000	13,000	24,000	15,000	36,000	10,000	35,000	84,000	59,000	39,000	388,000
Rockfish	4,000	2,000	6,000	20,000	3,000	7,000	4,000	5,000	4,000	15,000	14,000	36,000	120,000
Salmon	...	...	...	...	...	...	1,000	7,000	9,000	6,000	...	32,000	55,000
Sole	128,000	126,000	197,000	13,000	54,000	43,000	62,000	87,000	119,000	47,000	70,000	116,000	1,062,000
Other	4,000	11,000	7,000	...	7,000	...	...	4,000	4,000	...	3,000	...	40,000
Total Washington	195,000	179,000	291,000	108,000	187,000	178,000	304,000	219,000	310,000	215,000	210,000	328,000	2,724,000
OREGON													
Blocks & Slabs	...	3,000	2,000	2,000	1,000	11,000	10,000	26,000	8,000	4,000	6,000	6,000	79,000
Cod	...	...	...	...	4,000	6,000	11,000	2,000	2,000	2,000	1,000	15,000	43,000
Halibut	...	...	...	...	...	40,000	77,000	176,000	73,000	42,000	37,000	...	445,000
Lingcod	...	...	...	...	1,000	1,000	2,000	...	1,000	...	...	...	5,000
Ocean Perch	1,000	6,000	2,000	13,000	3,000	15,000	60,000	14,000	41,000	12,000	...	...	167,000
Rockfish	...	8,000	1,000	10,000	7,000	9,000	8,000	5,000	6,000	2,000	1,000	...	57,000
Salmon	...	...	...	...	23,000	14,000	56,000	14,000	23,000	28,000	10,000	15,000	183,000
Sole	5,000	27,000	24,000	6,000	41,000	96,000	99,000	144,000	126,000	112,000	42,000	33,000	755,000
Other	...	...	...	...	1,000	...	...	...	...	...	...	...	1,000
Total Oregon	6,000	44,000	29,000	31,000	81,000	192,000	323,000	381,000	280,000	202,000	97,000	69,000	1,735,000
PACIFIC NORTHWEST TOTAL	201,000	223,000	320,000	139,000	269,000	370,000	627,000	600,000	590,000	417,000	307,000	397,000	4,459,000

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1957–Coastwise Receipts at Seattle from British Columbia –1957

SPECIES		Dec. '56	Jan. '57	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov	12 Mont Total
Fillets: Sole	frozen	80,600	43,500	37,400	103,500	30,700	24,200	16,900	30,600	82,500	22,400	65,500	30,600	568,40
" Other	fresh	...	...	...	...	...	7,900	1,300	19,600	...	40,200	3,500	20,500	93,00
" "	frozen	106,500	159,600	188,000	317,500	187,300	94,800	134,200	105,300	220,400	97,900	176,800	101,500	1,889,80
Halibut	fresh	...	...	...	...	...	83,600	25,400	19,100	...	12,600	48,000	15,300	204,00
"	frozen	220,500	398,800	502,800	574,100	361,800	234,800	240,700	272,700	266,700	208,600	253,200	114,400	3,649,10
Herring	frozen	...	...	6,000	48,300	10,900	6,400	28,100	96,500	67,700	21,000	93,500	3,500	381,90
Lingcod	fresh	5,000	...	7,300	44,800	68,300	42,400	32,500	19,600	41,000	4,500	32,200	31,800	329,40
"	frozen	...	...	...	12,600	...	...	...	...	...	...	...	...	12,60
Sablefish	fresh	...	...	...	...	...	...	...	53,000	...	...	...	...	53,00
Salmon: Chinook	fresh	...	...	...	...	261,200	253,600	383,800	311,200	409,500	308,900	53,900	...	1,982,10
" "	frozen	51,500	48,100	45,700	68,900	31,100	46,400	40,300	32,000	...	103,400	110,300	23,900	601,60
" Chum	fresh	...	...	...	...	...	...	...	...	...	...	1,376,200	537,700	1,913,90
" "	frozen	9,800	21,800	71,600	53,000	162,700	...	...	10,000	...	6,600	...	118,800	454,30
" Silver	fresh	...	...	...	...	...	...	81,300	703,800	692,500	...	...	...	1,477,60
" "	frozen	...	...	...	...	...	5,000	...	...	...	...	30,000	...	35,00
" Unclassified	fresh	...	...	...	...	...	...	...	...	231,400	...	...	...	231,40
"	frozen	28,600	74,600	57,500	285,700	191,300	55,000	28,400	69,000	35,000	86,500	24,200	41,500	977,30
Smelt	frozen	4,600	6,000	4,000	11,000	2,400	4,000	...	...	...	600	5,400	2,200	40,20
SHELLFISH:														
Clams	frozen	...	...	...	6,000	20,000	...	...	...	...	...	...	...	26,00
Crabs	cooked	...	...	...	...	...	2,200	...	27,600	...	...	...	...	29,80
"	frozen	27,500	4,800	...	...	4,800	...	...	...	...	...	25,800	7,700	70,60
Crabmeat	frozen	...	1,700	...	...	2,000	...	1,100	...	...	...	...	...	4,80
Shrimpmeat	frozen	1,900	...	6,800	16,300	8,700	...	3,700	...	4,000	...	1,300	4,600	47,30
CURED FISH:														
Codfish, salted	lbs.	1,200	6,600	...	4,300	4,800	...	7,800	...	...	...	...	...	24,70
Cod Fillets, smoked	lbs.	3,700	13,800	3,200	2,900	5,300	3,500	14,300	8,300	12,000	...	100	...	67,10
Finnan Haddie	lbs.	5,000	5,300	...	7,700	3,800	4,500	4,700	7,700	...	...	...	...	38,70
Herring, Kippered	lbs.	2,000	14,200	3,000	13,200	2,500	6,600	2,100	4,500	3,900	...	...	1,900	53,90
" Pickled	lbs.	4,200	2,700	1,400	1,100	2,200	2,700	2,500	3,000	5,600	...	...	4,000	29,40
" Salted	lbs.	24,100	...	...	...	...	...	...	...	...	...	...	16,700	40,80
Mackerel, Salted	lbs.	7,100	3,700	4,000	4,000	...	...	...	...	...	10,000	...	...	28,80
Salmon, Kippered	lbs.	8,300	2,100	2,200	3,300	3,100	3,100	4,700	4,900	...	...	...	...	31,70
" Smoked	lbs.	4,400	7,900	6,000	2,600	2,600	2,500	2,700	1,900	...	200	300	300	31,40
MEAL & OIL:														
Herring Meal	ton	356	1,954	2,389	3,553	3,460	1,060	1,139	1,827	352	233	285	...	16,60
Unclassified Meal	ton	...	30	185	120	232	...	120	270	378	381	42	120	1,87
Unclassified Oil	gal.	16,243	8,976	8,246	330	7,948	...	...	16,381	5,848	22,814	...	8,111	94,89
Fish Solubles	gal.	26,410	71,440	107,580	75,900	70,065	90,962	28,643	40,262	29,233	15,370	7,120	35,221	598,20

1957-EUREKA AREA FRESH FISH LANDINGS-1957

(Pounds)

SPECIES	Nov. '56	Dec. '56	Jan. '57	Feb.	March	April	May	June	July	August	Sept.	Oct.	TOTA
Flounder	8,900	4,800	3,600	19,100	2,200	2,200	13,300	7,600	5,100	7,300	4,500	3,700	82,30
Halibut	...	...	...	...	...	...	12,300	19,800	4,300	3,800	700	...	40,90
Herring	...	...	5,800	2,500	...	...	...	...	...	...	...	...	8,30
Lingcod	5,500	11,400	4,300	8,500	6,300	29,700	13,500	33,300	31,000	58,500	40,100	14,500	256,60
Perch	4,700	3,500	2,500	5,000	4,500	19,900	...	...	8,200	18,600	8,500	6,100	81,50
Rockfish	99,900	116,600	83,800	163,700	184,300	253,200	126,000	165,600	158,400	205,800	242,900	86,800	1,887,00
Sablefish	14,900	14,300	3,100	500	7,900	10,100	11,600	48,400	24,500	60,900	58,000	6,100	260,30
Sand Dabs	3,600	5,100	2,400	12,000	7,300	8,300	6,600	13,700	9,500	23,600	10,500	10,600	113,20
Sole: Arrowtooth	56,800	74,400	33,000	43,000	38,600	56,900	47,000	128,300	62,400	80,300	82,900	25,300	728,90
Dover	315,400	221,200	15,000	15,800	33,600	139,600	229,700	670,100	397,200	543,200	514,200	172,800	3,267,80
English	44,000	67,400	124,800	155,500	105,600	90,200	82,700	122,900	61,000	119,700	81,700	130,700	1,186,20
Petrale	68,200	136,400	115,700	57,100	47,800	75,000	65,400	73,000	68,500	228,700	125,600	58,100	1,119,50
Rex	31,600	24,900	29,700	24,100	21,000	34,800	30,300	38,800	33,800	50,400	55,600	27,100	402,10
Sand	...	1,100	3,100	4,100	1,500	1,300	400	600	4,000	1,900	1,200	5,600	24,80
Salmon	...	...	...	...	...	3,900	291,400	414,600	54,500	193,000	59,700	...	1,017,10
Tuna	...	...	...	...	...	...	...	...	...	500	368,600	567,800	936,90
Turbot	41,100	1,200	100	100	1,500	900	100	300	100	300	400	...	46,10
Whitebait	...	...	...	1,000	1,000	2,500	5,300	2,800	39,100	14,000	...	...	65,70
Miscellaneous	77,700	93,600	43,400	53,600	28,500	56,800	54,400	138,400	72,200	135,600	101,000	72,400	927,60
Shrimp	...	...	...	...	...	...	...	18,200	60,100	...	76,300	...	154,60
Crabs	104,200	215,900	230,100	815,300	840,900	740,400	658,800	272,400	42,000	...	...	...	3,920,00
Squid	...	...	...	...	...	...	...	...	...	114,200	...	...	114,20
Oysters	...	332,597	185,000	10,058	111,665	70,300	90,300	79,200	...	...	...	180,500	1,059,6
TOTAL	876,500	1,324,397	885,400	1,390,958	1,444,165	1,596,000	1,739,100	2,248,000	1,135,900	1,860,300	1,832,400	1,368,100	17,701,2

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From the Pacific Coast has come technical assistance and machinery for the sardine (pilchard) plants for both the Union of South Africa and South West Africa; and the jack mackerel (maasbanker) plants of the Union.

Prior to, and even during much of World War II there was no sardine fishing of any consequence along the West Coast of Africa. However, in 1946 arrangements were made by Lamberts Bay Canning Co., Lamberts Bay, Cape Province, to install an Enterprise fish meal and oil plant under the technical supervision of Stanley Livingston, for many years a superintendent with Coast Fishing Co., Wilmington, Calif.

Then in 1947 James R. Townsend, San Francisco fishery consultant, was retained by the Marine Products Corporation, Cape Town, to assist in the development of a shark fishery and canning and reduction facilities for sardines.

Mr. Townsend participated in the installation of what is said to be the first modern sardine processing plant at Laaiplek, St. Helena Bay, Cape Province. The plant was small with a 10-ton fish meal and oil plant equipped with California Press Manufacturing Co. and other California-made machinery; and a sardine cannery with a capacity of 1,000 cases per day of 15-oz. talls. The canning machinery was purchased from California manufacturers including closing machines from American Can Co.

Within a short time the capacity of this and other plants in the Cape area were rapidly expanded so that the allocated production of 250.000 tons yearly was being landed by 1950.

● Factors responsible for this rapid growth of the South African sardine fishery were not only the "know-how" acquired from experienced California sardine fishery experts, but also the failure at just about this time of the

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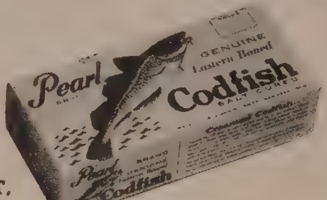

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SOUTH AFRICA

First Modern factory in the South Africa fishery, the Marine Products Corporation operation at Laaiplek, St. Helena Bay, Cape Province, seen from the opposite bank of the Berg River. The cannery buildings are to the left of the stacks, with the reduction division to the right.

California sardine fishery, which resulted in the liquidation of many plants.

Thus canning and reduction machinery was readily available for shipment to South Africa at a fraction of its original cost.

Following the expansion of the sardine industry in the Cape area, the next move was 800 miles north into Walvis Bay, South West Africa, where the sardine industry showed a tremendous potential.

By 1953 this fishery was expanded to handle the alloted quota of 250,000 tons per year with six large plants engaged in canning and reduction operations. Here again the used equipment available from California plants, plus the experience with boats and gear as well as plant facilities, played a large part in the growth of this fishery.

During the growth period and to date, most of the leading South African sardine and jack mackerel producers, as well as their technical staffs, have kept in close touch by personal visits to the Pacific Coast to keep abreast with new fishing industry developments.

According to Mr. Townsend, who is still on a consulting basis with a number of the leading producers, the South African sardine fishing and processing industry is one of the most modern in the world. All types and sizes are packed, much the same as in California, including 15-oz. talls, with and without tomato sauce, 15-oz. ovals in tomato sauce, 5-oz. jitneys, and 8-oz. talls.

The 1957 pack of approximately 2,500,000 cases consists largely of 15-oz. talls, with about 1,000,000 cases of ovals. About 20 to 25% of the production is consumed in the Union of South Africa.

The rest of the canned fish is being exported to markets formerly served by California sardine canners, with the South African canners having added advantage of being able to deal in sterling area countries where dollar dealings would be more difficult.

- The 1957 catch in the St. Helena Bay (Cape) area is estimated to be about 90,000 tons of jack mackerel and 95,000 tons of sardines. The pack of jack mackerel is thought to be around 300,000 cases.

In the Walvis Bay area, some 800 miles north, no jack mackerel are caught, but the catch of sardines in 1957 was 250,000 tons, the limit set by law. The pack was about 1,800,000 cases in this area.

A limit of 250,000 tons of sardines and pack mackerel is set for the Cape area in the Union and 250,000 tons of sardines for the South West Africa area. The fish is caught and landed by 220 power fishing boats, manned by more than 2,000 fishermen. The boats are of from 45 to 65' long, and largely use lampara type nets.

The catch is processed by 15 canneries and 13 reduction plants, which in 1955 produced 16,776,086-lbs. of canned sardines, 17,875,934-lbs. of canned jack mackerel; 41,077 short tons of meal, and 2,589,826 gals. of oil.

The fishing season starts in January and closes at the beginning of September, although fishing has been allowed to continue if the 250,000 ton ceiling has not been reached.

U. S. 1956 Imports
Spiny Lobster Tails

(In thousands of pounds)

Union of South Africa	7,025
Australia	4,638
Cuba	4,303
New Zealand	3,852
Mexico	1,955
Bahamas	1,591
Other Countries	1,844
Total	25,258

The industry grew at an amazing clip from 1947 to 1952. From a catch of only 7,500 tons in 1943, total landings rose to 250,000 tons in 1949-50, and in 1952, 300,560 tons of sardines and jack mackerel were landed. It was concern over this ever increasing catch that led to the limitation of the annual catch to 250,000 tons in each district.

This followed an earlier limitation on the building of processing plants and then in 1953, the number of boats operating in the fishery were restricted to the capacity of those already in service or on order in January of that year.

- Considerable research into the sardine and jack mackerel resource has revealed no sign of overfishing, although there has been a slight decline in the catch over the past three years.

- Aside from the canning and reduction of schooling fish, South Africa possesses a rich fishery resource in the spiny or "rock" lobster, as it is known in the area of origin.

While frozen lobster tails are now produced in volume in the Carribean, Australia and other subtropical waters, South Africa was the pioneer in industrial freezing and merchandising of these shellfish. While the species of spiny lobsters differ among the several principal producing regions of the world, with some variation in quality among species, generally they are sold as "frozen lobster tails", with the trade identifying quality with declared point of origin.

Cape lobster tails, beside enjoying the advantage of precedence and long favor in the market, also rank with the best in quality. They are produced widely around the southern tip of Africa and, with the technique of preparation, freezing and packing well established and perfected, enjoy world acceptance.

Fish Factories of the Cape and S. W. Africa

Walvis Bay

Walvis Bay Canning Co. Ltd. (Ovenstone Group). Producer of canned pilchards, fish meal and fish body oil.

West Coast Fishing Industries Ltd. (Swafil Group). Producer of canned pilchards, fish meal and fish body oil.

Tuna Corporation of Africa Ltd. (Marine Products Group). Producer of canned pilchards, fish meal and fish body oil.

The Luderitz & Walvis Fishing Co. Ltd. (Sea Products Group). Producer of canned pilchards, fish meal and fish body oil.

New Western Fishing Industries Ltd. (Mid Western Group). Producer of canned pilchards, fish meal and fish body oil.

Namib Fisheries Ltd. (Marine Products Group). Producer of fish meal and fish body oil.

Northern Fishing Industries of S. W. A. (Pty.) Ltd. (Swafil Group). Producer of fresh, salted and frozen fish, fish meal and fish oil.

Protea Fish Products (Pty.) Ltd. White fish packers, freezers and curers

Luderitz

Luderitz Bay Cannery Ltd. (Sea Products Group). Producer of canned rock lobster and frozen rock lobster tails.

African Canning Co. (S. W. A.) Ltd. (Sea Products Group). Producer of canned rock lobster and frozen rock lobster tails.

South West Africa Fishing Industries Ltd. (Swafil Group). Producer of canned rock lobster, frozen rock lobster tails and rock lobster meal.

Lurie's Canning Factory Ltd. (Sea Products Group). Producer of canned rock lobster and frozen rock lobster tails.

Port Nolloth

John Ovenstone Ltd. (Ovenstone Group). Producer of canned rock lobster, frozen rock lobster tails and frozen fish.

Hickson's Canning Co. (S. A.) Ltd. (Sea Products Group). Producer of canned rock lobster, frozen rock lobster tails and rock lobster meal.

Hondeklip Bay

Namaqua Canning Co. Ltd. (Seafare Group). Producer of frozen rock lobster tails, canned rock lobster and rock lobster meal.

Lambert's Bay

African Fish Canning Co. Ltd. (Sea Products Group). Producer of canned fish, canned and frozen rock lobster tails, fish meal and fish body oil.

Lambert's Bay Canning Co. Ltd. (Seafare Group). Producer of canned fish, canned and frozen rock lobster tails, fish meal and fish body oil.

Laaiplek

Marine Products Corporation of Africa Ltd. (Marine Products Group). Producer of canned pilchards, mackerel and maasbanker, fish meal and fish body oil.

Laaiplek Rock Lobster Packers (Pty.) Ltd. (Managed by Marine Products). Producer of canned rock lobster.

Velddrif

African Inshore Fisheries Development Corporation Ltd. (Sea Products Group). Producer of canned pilchards, mackerel and maasbanker.

Velddrift Fish By-products Ltd. (Sea Products Group). Producer of fish meal and fish body oil.

Thorn Bay

North Bay Canning Co. Ltd. (Seafare Group). Producer of canned fish, canned rock lobster, frozen rock lobster tails, fish meal, rock lobster meal, and fish body oil.

St. Helena Bay

West Point Fishing Corporation (Pty.) Ltd. (Silverman Group). Producer of canned pilchards, mackerel and maasbanker, fish meal and fish body oil.

Stephan Bros. Ltd. Producer of canned pilchards, mackerel, maasbanker, and rock lobster, fish and rock lobster meal and fish body oil.

Van Riebeeck Canning & Fishing Corporation (Pty.) Ltd. Producer of canned pilchards, mackerel and maasbanker.

Sandy Point Canning Co. Ltd. (Seafare Group). Producer of canned pilchards, mackerel and maasbanker, fish meal and fish body oil.

Mid Western Fish Products Ltd. (Mid Western Group). Producer of canned pilchards, mackerel and maasbanker, fish meal and fish body oil.

Columbine Canning Co. Ltd. (Ovenstone Group). Producer of fish meal and fish body oil.

Stompneus Bay

St. Helena Bay Fishing Industries Ltd. (Seafare Group). Producer of canned pilchards, mackerel and maasbanker, fish meal and fish body oil.

Saldanha Bay

Saldenha Bay Canning Co. Ltd. (Silverman Group). Producer of canned pilchards, mackerel, maasbanker and rock lobster, fish meal and fish body oil.

Southern Sea Fishing Enterprises (Pty.) Ltd. Producer of canned pilchards, mackerel, maasbanker and rock lobster, fish meal and fish body oil.

Vredenburg

Vredenburg Food Products (Pty.) Ltd. Producer of canned, smoked and cured fish.

Cape Town

Irvin & Johnson Ltd. Trawler owners and distributors of frozen fish.

Concentra Ltd. (Irvin & Johnson Group). Producer of whitefish meal, fish and rock lobster meal, fish oil and fish liver oil.

Vitamin Oils Ltd. (Irvin & Johnson Group). Producer of vitamin oil and agar.

Union Smokeries (Pty.) Ltd. (Irvin & Johnson Group). Producer of canned, cured and quick frozen fish.

S. A. Dehydrated Fish (Pty.) Ltd. (Irvin & Johnson Group). Producer of dried salted and unsalted fish.

B. Gelcer & Co. (Pty.) Ltd. Trawler owners and distributors of fresh fish. Producer of cured fish.

Christie's Fish Supplies (Pty.) Ltd. Producer of canned, cured, dried and salted fish and fish paste.

Hout Bay

South African Sea Products Ltd. (Sea Products Group). Producer of frozen rock lobster tails and canned rock lobster.

Atlantic Smokeries Ltd. (Sea Products Group). Produce of cured and dried fish.

Hout Bay Canning Co. (1920) Ltd. (Sea Products Group) Producer of canned and frozen rock lobster tails.

False Bay (Dido Valley)

Marine Oil Refiners of Africa Ltd. Producer of industrial oils, feed oils, vitamin concentrate, low potency oil stearic acid, technical and edible grade fats and oils.

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BRITISH COLUMBIA HERRING PRODUCTION

YEAR	Fish Landed Tons	CANNED HERRING (Cases)				Fresh and Bait Tons	Herring Meal Tons	Herring Oil (Imperial) Gallons
		1-lb. Talls	1-lb. Ovals	1/2-lb. Ovals	Total Full Cases			
1957 Spring Season	92,538	...	...	...	.	963	16,812	1,187,841
1957 Fall Season	59,128	...	...	...	...	...	11,115	1,417,120
1957 Grand Total	151,666	...	...	...	...	963	27,927	2,604,961
1956 Spring Season	154,117	...	...	...	..	1,233	30,140	2,241,814
1956 Fall Season	87,405	...	...	...	...	15	15,743	2,264,921
1956 Grand Total	178,282	...	...	...	...	1,248	45,883	4,506,735
1955 Spring Season	58,882	...	...	...	...	867	11,587	1,040,608
1955 Fall Season	94,776	...	...	...	...	112	15,923	1,930,248
1955 Grand Total	153,658	...	....	...	...	979	27,510	2,970,856
1954 Spring Season	67,045	...	...	...	...	1,195	12,478	442,747
1954 Fall Season	111,237	...	...	...	6,470	152	17,344	2,622,103
1954 Grand Total	178,282	...	...	...	6,470	1,347	29,822	3,064,850
1953 Spring Season	12,011	...	...	...	10,230	51	1,790	363,200
1953 Fall Season	132,576	...	...	...	75,312	452	21,937	2,608,399
1953 Grand Total	144,587	...	...	...	85,542	503	23,727	2,971,599
1952 Spring Season	90,236	...	...	...	2,764	1,764	16,221	1,428,206
1952 Fall Season	...	...	...	...	...	...	...	...
1952 Grand Total	90,236	...	...	...	2,764	1,764	16,221	1,428,206
1951 Spring Season	72,925	...	...	...	116,674	23,820	13,388	949,801
1951 Fall Season	107,103	...	...	...	102,536	32,340	17,059	2,320,994
1951 Grand Total	180,028	...	...	...	219,210	56,160	31,447	3,270,795
1950 Spring Season	74,621.00	...	...	...	2,475	150.34	14,604.35	988,372
1950 Fall Season	114,258.00	...	...	...	61,152	605.64	17,961.08	2,308,736
1950 Grand Total	188,879.00	...	...	...	63,627	755.98	32,565.43	3,297,108
1949 Spring Season	76,546.62	2,613	...	...	2,613	2,103.35	13,361.50	548,432
1949 Fall Season	106,259.00	1,000	74,162	225	75,387	1,051.48	16,075.10	2,317,113
1949 Grand Total	182,805.62	3,613	74,162	225	78,000	3,154.83	29,436.60	2,865,545
1948 Spring Season	87,915,01	79,128	215,050	21,829	315,007	1,589.56	12,757.87	751,064
1948 Fall Season	112,705.18	...	...	...	90,202*	554.75	18,244.07	2,019,508
1948 Grand Total	200,620.19	79,128	215,050	21,829	405,209	2,144.31	31,001.94	2,770,572
1947 Spring Season	42,006.34	250,595	176,203	4,125	430,923	3,183.05	4,109.20	200,581
1947 Fall Season	77,412.98	219,635	698,786	10,748	929,719	1,045.25	7,212.09	1,092.057
1947 Grand Total	119,419.32	470,230	874,989	14,873	1,360,642	4,228.30	11,321.29	1,292,638
1946 Spring Season	29,376.48	71,537	61,290	21,975	154,802	3,304.71	3,437.30	251,838
1946 Fall Season	67,691 61	80,281	886,889	40,802 ½	1,007,972 ½	5,718.73	4,364.25	644,777
1946 Grand Total	97,068.09	151,818	948,179	62,777 ½	1,162,774 ½	9,023.44	7,801.55	896,615
1945 Spring Season	61,906.03	80,001	127,202	55,418	262,621	3,558.05	8,350.96	490,214
1945 Fall Season	70,193.36	67,296	1,056,310	30,290	1,153,896	1,131.10	4,420.45	610,643
1945 Grand Total	132,099.39	147,297	1,183,512	85,708	1,416,517	4,689.15	12,771.41	1,100,857

*Sizes of cans not designated.

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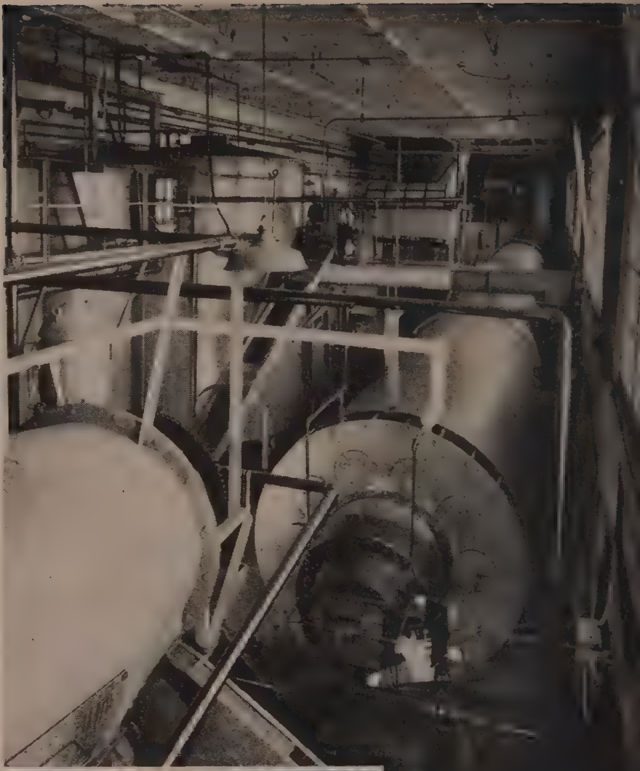
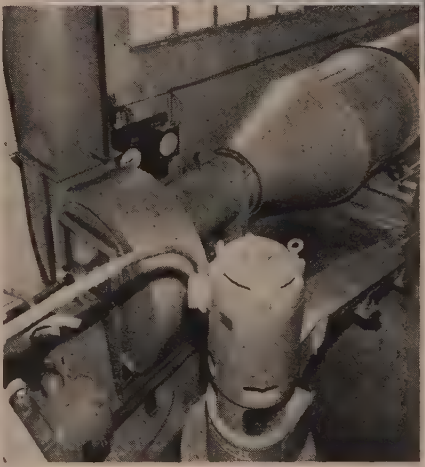


(Above) Standard Low Temperature Fish Meal Dryer in operation at Pan Pacific Fisheries, Inc., Terminal Island, California.



(Left) Dryer discharge end. All fish meal is removed from dryer through the fan for additional drying while being air-conveyed to cyclone.

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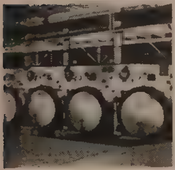

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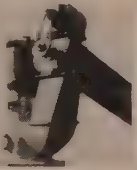

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1957 - Pacific Coast Fish Oil and Meal - 1957

Regions	Fish Meal Tons	Herring Oil Gallons	Sardine Oil Gallons	Other Fish Oils Gallons	Total Oil Gallons	Regions
Alaska	8,822	1,721,606	...	20,700	1,742,306	Alaska
Southeast	3,570	688,400	....	200	696,600	Southeast
Prince William Sound	1,925	378,620	....	...	378,620	Prince William Sound
Kodiak Island	3,327	654,586	....	12,500	667,086	Kodiak Island
British Columbia	30,927	3,125,953	....	641,000	3,766,953	British Columbia
Washington	5,600	*	....	151,000	151,000	Washington
Oregon	1,975	...	....	83,000	83,000	Oregon
California	30,970	...	83,196	838,271	921,467	California
TOTALS	78,294	4,847,559	83,196	1,733,971	6,664,726	TOTALS

* Data not available.

By-Products Industry Set Back by Strikes

• Fish oil and meal production in Pacific North America declined sharply in 1957 as the direct result of strikes in the two most important producing areas—California and British Columbia.

To the 10 weeks of delay in opening of the sardine season in Southern California; and the long deadlock in British Columbia, where the majority of the herring operation was shut down during the entire fall season, may be ascribed the fall-off of around 3,000,000 gals. in the year's fish oil production and the decline of around 20,000 tons in fish meal.

Actually the Southern California situation perhaps should not properly be called a strike, as in its fundamentals it was an inter-union conflict for dominance.

In Canada, on the other hand, the union demands were fixed at a level which the operators considered entirely unrealistic in view of the condition of the commodity markets and particularly the world fats, oils and feeding concentrates pricing.

As result the British Columbia herring resource went largely uncropped for the second year in the industry's history. It is true that there was some fishing during the fall season when the union permitted operations for certain packers who had salt herring contracts and could use them to average-up the price of fish to levels acceptable to the union.

Relatively the brightest spot in the Pacific fish reduction picture was Alaska, where in 1958 the herring business for the third successive year registered moderate gain.

Alaska Fish By-Products

(NOT INCLUDING VITAMIN OILS)

YEAR	SOUTHEAST ALASKA Number Active Plants	SOUTHEAST ALASKA Fish Oils, Gallons	SOUTHEAST ALASKA Fish Meal, Tons	PRINCE WILLIAM SOUND Number Active Plants	PRINCE WILLIAM SOUND Fish Oils, Gallons	PRINCE WILLIAM SOUND Fish Meal, Tons	KODIAK ISLAND AREA Number Active Plants	KODIAK ISLAND AREA Fish Oils, Gallons	KODIAK ISLAND AREA Fish Meal, Tons	ALL ALASKA Number Active Plants	ALL ALASKA Fish Oils, Gallons	ALL ALASKA Fish Meal, Tons
1957§	[illegible]	696,600	3,570	2	378,620	1,925	**3	667,086	3,327	8	1,742,306	8,852
1956	2	758,010	3,551	...	493,435	2,208	**2	471,905	2,160	5	1,723,350	7,919
1955	[illegible]	*	*	*	[illegible]	*	*	*	*	4	1,041,989	4,480
1954	3	*	*	2	*	*	**1	...	...	6	676,570	3,069
1953	*	*	*	1	*	*	**2	**	*	5	576,845	2,401
1952	5	*	*	2	*	*	**2	*	*	9	803,467	4,590
1951	5	527,092	2,439	4	803,773	3,600	**5	109,000	632	14	1,439,865	6,671
1950	4	593,720	2,694	4	847,950	3,305	**4	1,581,514	7,695	12	3,033,184	13,694
1949	5	651,186	3,269	1	...	140	**3	16,900	199	9	686,086	3,608
1948	8	623,814	2,631	4	919,437	2,974	**7	1,959,378	7,078	19	3,501,631	12,483
1947	8	1,762,648	6,727	...	...	...	6	2,017,027	7,505	14	3,779,675	14,232
1946	5	1,359,409	6,860	2	453,962	2,066	4	1,731,536	6,942	11	3,544,907	15,868
1945	[illegible]	1,110,973	4,507	2	295,951	1,541	4	1,328,249	5,140	11	2,835,173	11,188
1944*	..	.	. .	...	. .	...	..	..	.	8	2,355,010	8,777
1943*	.	...	..	...	..	.	.	..	...	8	1,644,142	7,280
1942	1	60,000	700	1	62,518	270	2	770,000	2,570	4	892,518	3,540
1941	1	80,500	555	6	1,221,242	5,408	4	1,592,506	5,777	11	2,894,248	11,740
1940	1	40,000	450	6	1,290,857	4,720	3	808,822	2,973	11	2,139,679	8,143
1939	5	882,317	4,042	7	2,227,087	7,838	6	1,729,127	5,617	18	4,846,631	17,497
1938	6	951,109	4,489	6	2,403,797	8,847	4	1,224,273	3,637	16	4,593,579	16,973
1937	9	2,024,315	8,725	6	2,175,423	7,102	5	1,388,300	3,809	20	5,588,038	19,636
1936	6	1,421,470	6,487	6	1,426,323	5,546	5	975,344	3,018	17	3,823,137	15,051
1935*	..	.		...	...	.	.	..	...	19	3,853,243	15,818

*Data for separate areas of Alaska not available. §Segregation of 1957 production by districts is preliminary. **Includes one on Cook Inlet.

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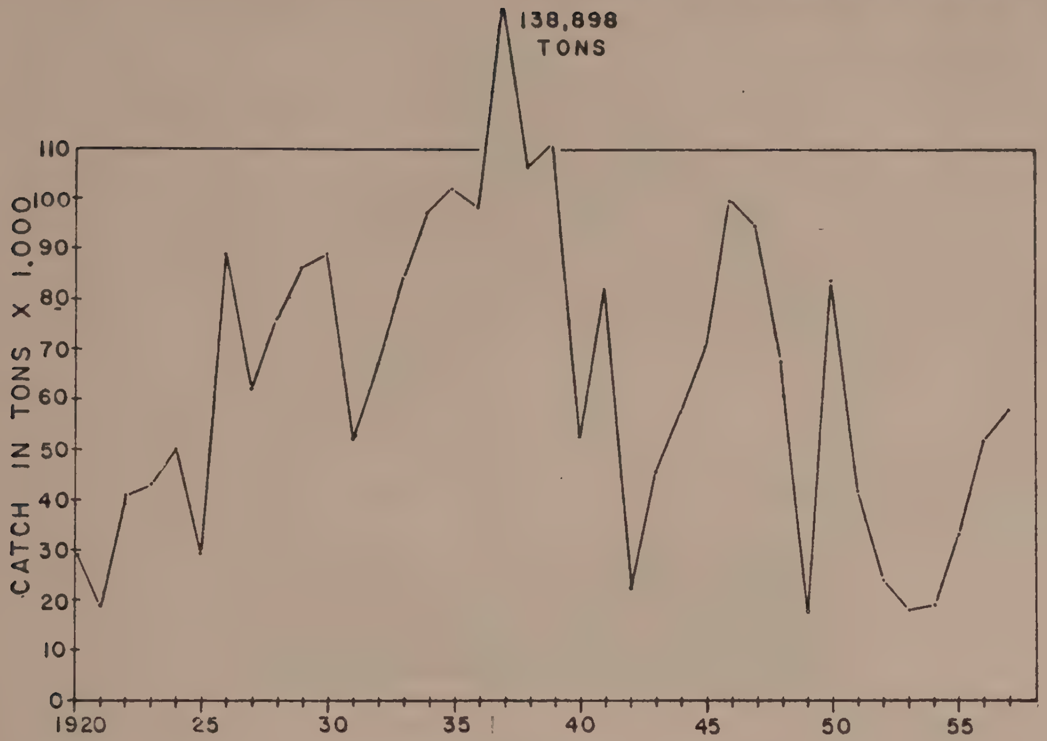

Alaska Herring Catch by Years

● The herring reduction fishery in 1957 continued its upward trend for the third year. The season's total catch by the reduction fishery was 57,338 tons as compared to 51,310 tons taken in 1956. The overall catch approached the Alaskan production average for the past 30 years, according to the Alaska Regional Office of the U. S. Bureau of Commercial Fisheries.

The Bureau's biologists go on to report that the new year class entering the fishery was not strong, and in all fishery districts the catch this year, as last, was dependent upon a single age group. Fish in their fourth year made up about 80% of the catch.

In spite of the natural mortality which reduced the numbers of the dominant year class, the catch per boat-ton day remained high. The seasonal average of this unit, which is one index of abundance, increased in 1957 for Prince William Sound, remained the same on Kodiak, and dropped somewhat in Southeastern Alaska.

The herring fishery of Alaska, as in similar fisheries throughout the world, is dependent upon the presence of one or more dominant year classes. These good spawning survivals usually appear as two-year-olds in the fishery. There has been no evidence of a strong entering year class in next year's fishery, the present stock of three-year-old fish is not conspicuously evident.

PACIFIC NORTHWEST FISH BY-PRODUCTS

(Not Including Vitamin Oils)

YEAR	OREGON					WASHINGTON					YEAR
	# Active Plants	Fish Meal Tons	Sardine or Pilchard Oil, Gals.	Other Fish Oils, Gals.	Total Fish Oil, Gals.	# Active Plants	Fish Meal Tons	Sardine or Pilchard Oil, Gals.	Other Fish Oils, Gals.	Total Fish Oil, Gals	
1957	1	1,975	.	83,000	88,000	6	5,600	...	151,000	151,000	1957
1956	1	2,000	.	86,000	86,000	4	4,905	...	153,960	153,960	1956
1955	1	1,800	...	72,000	72,000	4	4,206	...	204,231	204,231′	1955
1954	1	1,519	...	51,380	51,380	4	5,635	...	244,343	244,343	1954
1953	2	1,607	...	53,000	53,000	4	2,690	...	169,000	169,000	1953
1952	2	744	...	19,000	19,000	4	2,217	...	138,140	138,140	1952
1951	2	1,150	...	24,000	24,000	4	2,047	...	132,638	132,638	1951
1950	[illegible]	1,260	...	23,085	23,085	5	1,032	...	110,960	110,960	1950
1949	3	...	...	26,700	26,700	5	1,754	...	111,868	111,868	1949
1948	4	1,228	114,928	...	114,928	9	3,269	...	210,923	210,923	1948
1947	4	2,040	228,558	17,626	246,184	8	4,548	44,375	201,863	246,238	1947
1946	[illegible]	1,633	120,336	13,391	133,727	10	3,730	186,690	154,733	341,423	1946
1945	3	907	...	26,000	26,000	7	3,542	78,558	158,958	237,516	1945
1944	2	1,200	...	50,000	50,000	5	901	960	64,500	65,460	1944
1943	[illegible]	1,365	32,000	26,000	58,000	6	2,901	277,627	78,000	355,627	1943
1942	2	861	25,014	8,200	33,214	6	2,003	27,787	168,600	196,387	1942
1941	[illegible]	2,969	398,235	...	398,235	11	4,168	400,102	152,389	552,491	1941
1940	5	592	114,717	...	114,717	11	1,451	35,656	145,174	180,830	1940
1939	[illegible]	3,933	833,300	...	833,300	8	4,026	672,066	103,500	775,566	1939
1938	6	2,933	718,830	...	718,830	10	4,986	1,153,339	74,392	1,227,731	1938
1937	5	2,775	689,159	...	689,159	6	3,886	808,396	125,400	933,797	1937
1936	[illegible]	2,864	481,512	70,985	552,497	4	1,710	193,467	82,800	276,267	1936
1935	7	4,763	1,104,389	39,985	1,144,374	2	1,032	...	110,960	110,960	1935

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Pacific Canned Pet Food

(In standard cases equivalent to 48 lbs. each)

Year	Alaska		California		Washington and Oregon		Pacific Totals	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
1949	75	$450	896,489	$4,222,300	*	*	896,564	$4,222,750
1950	--	---	1,388,110	7,471,751	*	*	1,388,110	7,471,751
1951	35	263	1,192,428	6,340,527	**	**	1,192,463	6,340,790
1952	80	600	1,328,513	6,753,039	**	**	1,328,593	6,753,639
1953	50	375	1,091,815	5,778,955	34,400	$133,300	1,126,265	5,912,630
1954	--	---	976,477	5,098,992	49,148	188,736	1,025,625	5,287,728
1955	--	---	1,949,375	10,062,298	61,846	242,628	2,011,221	10,304,926
1956	--	---	2,548,328	12,084,221	78,398	316,127	2,626,726	12,400,348

*Not available. **Combined with California

● The herring fishery continued to be an important factor in British Columbia's marine economy during 1957, although operations were beset by frequent disagreements between fishermen and operators on the question of price.

Declining meal values discouraged the operators from offering prices comparable with those effective during the previous season, while at the same time fishermen maintained that their costs were steadily rising and that additional revenue would be needed to give them sufficient incentive for going fishing.

As in the fall of 1956, industry and fishermen were in stalemate for some time during the latter part of 1957 before determining when the season would actually get under way. During the 1956-57 season, ended in March, total production of the herring fleet was 179,943 tons. In addition, there was a summer herring operation and this contributed some 46,000 tons.

● During the negotiations in the late fall of 1957 the operators suggested a reduction in the fleet as a means of increasing average earnings of the fishermen, and this was received with favor, but the fishermen were not satisfied with the earlier proposals for compensation. The fleet reduction involved the use of 64 vessels instead of the 78, as in 1956. In previous years, as many as 100 vessels had been engaged in herring seining, with individual boat shares reduced accordingly.

The gross labor rate which was resisted by fishermen during the fall of 1957 was $9.90 per ton where seiners landed herring at the plants. During the previous year the rate had been $13.25. The cut in rates was thus interpreted as 25%. The rate per man per ton was proposed at 93 cents, compared with $1.06 the previous year—roughly 12½%.

The companies proposed that seven men should be employed on each seiner, compared with eight the previous season, this being a reduction of 12½%. The companies also suggested curtailment of crews on packers.

The fishermen had been asking for, among other concessions, a minimum seasonal wage of $2,000 for the herring operation, with similar wages subject to classification differences being guaranteed for tendermen, plus bonuses.

The dispute was between the fisher-

PACIFIC COAST FISH REDUCTION PRODUCTS

Fish Oil

Fish Meal

(Gallons)							(Tons)					
Alaska	Wash.	Oregon	Calif	British Columbia	TOTAL	Year	Alaska	Wash.	Oregon	Calif	British Columbia	TOTAL
232,376	116,282	20,000	26,063	..	394,721	1916	1,594	..	100	535		2,229
231,142	205,511	25,000	176,293	49,784	686,730	1917	1,858	3,186	190	3,481	1,220	9,935
147,716	98,711	35,200	346,724	64,060	692,411	1918	600	1,885	95	8,734	1,977	13,291
170,340	90,921	25,000	514,262	65,945	866,468	1919	1,218	1,114	350	11,153	1,847	15,682
720,118	21,850	23,175	611,585	66,802	1,443,530	1920	3,928	352	136	8,856	466	13,738
99,948	170,008	48,000	336,738	53,640	708,334	1921	678	1,354	300	6,317	489	9,138
454,938	157,555	14,000	547,050	90,553	1,264,096	1922	1,958	1,216	40	9,027	911	13,152
915,143	135,145	24,000	951,888	196,381	2,242,557	1923	3,635	992	150	9,238	823	14,838
1,193,705	79,028	42,000	2,350,722	289,651	3,955,106	1924	5,560	607	275	15,328	1,709	23,479
2,391,832	97,890	47,400	3,150,041	1,020,607	6,707,770	1925	9,302	1,395	300	22,936	4,551	38,484
3,018,675	78,352	58,000	2,123,928	2,555,485	7,834,440	1926	12,093	822	325	15,767	10,543	39,550
2,067,041	81,801	65,000	2,618,490	3,863,347	8,695,679	1927	7,704	956	500	21,374	16,659	47,193
2,585,990	79,347	54,000	3,749,302	4,877,059	11,336,698	1928	10,713	670	425	28,390	15,331	55,529
3,415,154	131,059	62,000	6,548,126	4,066,584	14,222,923	1929	13,353	1,554	460	43,496	21,208	80,071
3,601,305	121,602	53,600	5,842,763	4,767,120	14,386,390	1930	12,847	1,046	400	36,276	17,542	68,111
2,207,686	128,769	36,000	3,924,692	3,485,287	9,782,434	1931	8,704	714	228	22,440	19,561	51,647
2,632,154	79,219	33,000	5,125,399	1,857,065	9,726,837	1932	10,168	757	143	27,500	15,450	54,018
3,195,294	111,098	33,500	10,708,448	935,582	14,983,922	1933	11,435	1,085	210	58,879	6,752	78,361
3,741,604	116,967	38,000	18,910,687	2,492,230	25,299,488	1934	14,341	876	280	95,193	12,654	123,344
3,853,243	110,960	1,144,374	20,695,423	2,644,214	28,448,214	1935	15,818	1,032	4,763	103,772	16,090	141,475
3,823,137	304,975	552,497	24,511,950	2,802,678	31,995,237	1936	15,051	1,687	2,864	126,143	21,948	167,693
5,588,038	942,548	689,159	14,823,508	3,942,576	25,985,829	1937	19,636	4,012	2,775	93,897	25,630	145,950
4,587,513	1,231,144	718,830	16,065,029	4,023,798	26,626,314	1938	17,066	4,977	2,933	97,451	21,006	143,433
4,837,298	830,480	833,300	18,980,527	2,068,779	27,550,384	1939	17,477	4,651	3,933	105,169	19,468	150,698
2,142,674	180,830	114,717	13,214,990	3,388,442	19,041,653	1940	8,144	1,528	592	86,137	31,899	128,300
2,894,248	552,491	398,235	17,677,198	3,304,657	24,290,751	1941	11,740	4,168	2,969	102,812	24,312	146,001
892,518	144,691	33,214	12,686,640	2,255,908	16,012,971	1942	3,540	1,608	861	79,003	26,474	111,486
1,644,142	586,102	58,000	14,016,179	3,738,818	20,043,241	1943	7,280	3,231	1,365	86,151	24,919	122,946
2,355,010	65,460	50,000	18,271,859	3,548,422	24,290,751	1944	8,777	901	1,200	96,853	20,852	128,583
2,835,173	221,218	26,000	12,062,111	2,875,323	18,019,825	1945	11,188	2,894	907	78,653	21,123	114,769
3,544,907	341,423	133,727	4,902,625	1,431,600	10,354,282	1946	15,869	3,826	1,633	52,895	10,561	84,784
3,779,675	200,801	246,184	2,633,604	1,778,327	8,415,449	1947	14,232	1,631	2,040	37,065	12,773	62,611
3,501,631	210,923	114,928	2,833,197	3,427,273	10,087,952	1948	12,683	3,269	1,228	44,450	31,087	92,717
668,086	207,000	26,700	6,725,255	2,880,219	10,507,260	1949	3,608	3,200	1,786	66,504	31,419	106,517
3,033,184	110,960	23,085	7,202,130	4,015,024	14,384,383	1950	13,694	1,032	1,260	70,769	34,174	120,929
1,439,865	164,000	24,000	2,735,590	4,087,136	8,450,591	1951	6,671	1,178	1,150	41,498	34,235	84,732
803,467	130,000	19,000	1,280,994	250,465	2,483,926	1952	4,590	897	744	37,149	4,764	48,144
500,713	169,000	53,000	814,221	3,823,436	5,360,370	1953	2,544	2,690	1,607	25,121	26,944	58,906
676,570	244,343	51,380	1,408,245	4,776,395	7,156,933	1954	3,069	5,635	1,519	30,278	31,143	71,644
1,041,989	138,000	72,000	1,502,797	3,592,157	6,346,943	1955	4,480	3,200	1,800	30,740	25,104	65,324
1,723,350	93,000	86,000	1,190,259	6,691,082	9,783,691	1956	7,919	2,100	2,000	30,664	51,992	94,675
1,742,306	151,000	83,000	921,467	3,766,953	6,664,726	1957	8,822	5,600	1,975	30,970	30,927	78,294

men's unions and the Fisheries Association, the Federated Fishermen's Co-operative Association being not affected.

● During the "strike" the fishermen offered to permit fishing for herring to be used in sales to the Far Eastern salt herring market, it being claimed that a ton of herring used for salting theoretically returned two to three times the value of the same volume used for meal and oil.

Fishermen reported that there had been a restoration of the Oriental market for salt herring which had prevailed before World War II and that salting firms in British Columbia were receiving upwards of $125 a ton f.o.b. Vancouver for their product.

Two British Columbia companies engaged in this enterprise—F. Millerd & Co. and Nelson Bros. Fisheries. The total order called for delivery of about 1,000 tons of salt herring in 500-lb. boxes to Hongkong and Formosa, with the prospect of some of the shipment going to Formosa.

U. S. Boundary Waters Opened to Herring Fishing

● Boundary waters of the United States in Puget Sound and the Lower Strait of Georgia were opened to herring fishing for reduction purposes by United States vessels in the fall of 1957 by Milo Moore, Washington director of fisheries, after a series of hearings which approved this extension of the American reduction fishing.

The liberalization of the long-standing rule against reduction of herring in Washington resulted from the conviction that the herring available in American waters were part of the same population being fished by the Canadians on their side of the boundary, and that the Washington vessels might reasonably use the resource.

For initial year of this new program the quota was set at 15,000 tons of herring for processing by any means, to be taken during the period from October 1 to February 5.

Four seiners went to work soon after the regulation became effective, delivering their catches to the plant of Skagit Fisheries, Inc., at Anacortes.

To the end of the year they h made consistent catches, but had n found any truly heavy fishing.

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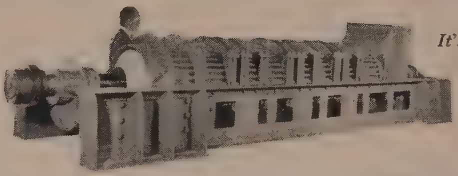

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Pacific Whaling Revives

● While numerically British Columbia's whale catch in 1957 was five whales higher than ever before, in total production and value the comparison would not be so favorable. Many of the whales caught were of the smaller species.

However, a total of 635 whales were taken during the season by the six-vessel fleet of B.C. Packers, Ltd., the only company engaged in whaling operations in the province.

Several Norwegian skippers were brought to the Pacific coast by B.C. Packers for the 1957 season to take command of their catcher boats, and this proved successful. The theory behind this innovation was that whaling is a specialized profession and cannot be practiced skillfully by men whose only previous experience has been with seiners or some other type of deepsea fishing operation. All the skippers brought out from Norway were men whose whole careers had been devoted to whaling either in the North Atlantic or Antarctic.

As in other years, the company was plagued by rising costs of operation and continuing low prices for the product of the whale fishery. Shore operations continued to be based at Coal Harbor, off the northwest coast of Vancouver Island, and no important changes in processing or equipment were made during the season.

The 1957 whale catch was distributed by species as follows: Finbacks, 283; Sperm, 191; Humpbacks, 49; Seis, 96; Blue, 16.

California Whaling

● Out of San Francisco Bay whaling continued active through 1957, with the Del Monte Fishing Co. operating its whale factory at Richmond, Calif., and producing meat for pet food uses as well as whale oil and meal.

Japanese pelagic whaling operations were continued actively in the vicinity of the Aleutian Islands during the 1957 season.

The Del Monte company is primarily a producer of ground whale meat which is packed in 50-pound paper sacks and then frozen. The ground whale meat (which looks like hamburger) is fed under pressure out of a three-inch pipe, which is controlled by a valve, directly into the sacks which are on a scale, thereby insuring the proper weight. At the present time, all of the whale meat product is being used by mink farms, but expansion into the pet food market is being considered.

The Richmond plant is situated next door to a reduction plant where all of the whale that is not used for meat is processed into meal and oil. This reduction plant, which uses a dry rendering process, is believed to be the only such plant of this type in the United States and the yield is reported to be better than in the more common reduction processes. The meal product produced is guaranteed to contain 68.5 percent protein, but will actually rate between 70-75 percent. The whaling company has been in operation for two years, but prior to the present reactivation of whaling activities, whale meat was imported from Canada for two years.

The whales are captured by a fleet of three catcher-boats, manned by a crew of five men each. They hunt daily, weather permitting, during the seasons which are: May 1 to October 31 on finback and humpback whales, and April 1 to November 30 on sperm whales.

The whaling grounds are offshore of the Farralon Islands, sometimes over a hundred miles at sea. The vessels are in constant communication with the plant so that production can be controlled to the plant capacity which is three whales daily.

Peruvian Whaling Rises

● Perhaps the most notable Pacific whaling development of 1957 was the going on-stream of the Cia. Ballenera del Norte plant at Paita, Peru.

This company, in which the Archer-Daniels-Midland Company of Minneapolis, Minn., is interested with Peruvians, established a remarkable plant near the northern extremity of Peru specifically to handle sperm whales, of which one of the world's greatest concentrations occurs along the coast of Peru.

The Paita establishment becomes the third Peruvian whaling station specializing in sperms.

1957 - FILLET IMPORTS TO U.S. - 1957

(Pounds)

Country	Oct. '56	Nov. '56	Dec. '56	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	TOTAL
Canada	22,070,000	7,796,000	5,904,000	14,164,000	8,387,000	9,499,000	10,681,000	10,634,000	10,377,000	17,473,000	14,287,000	10,412,000	141,684,000
Denmark	399,000	115,000	22,000	69,000	72,000	512,000	839,000	1,177,000	601,000	974,000	254,000	201,000	5,235,000
W. Germany	203,000	231,000	126,000	378,000	377,000	286,000	153,000	317,000	81,000	236,000	379,000	33,000	2,800,000
Greenland	....	278,000	...	339,000	....	....	....	....	....	....	....	....	617,000
Iceland	6,558,000	25,000	567,000	5,266,000	....	2,371,000	2,688,000	106,000	2,827,000	1,777,000	2,252,000	1,717,000	26,154,000
Japan	605,000	1,151,000	1,451,000	1,177,000	880,000	1,756,000	1,149,000	1,230,000	593,000	640,000	671,000	897,000	12,200,000
Mexico	14,000	....	4,000	3,000	64,000	133,000	112,000	107,000	80,000	158,000	6,000	28,000	709,000
Norway	976,000	6,000	471,000	810,000	1,026,000	37,000	39,000	226,000	203,000	629,000	743,000	232,000	5,398,000
Peru	82,000	342,000	...	....	....	....	31,000	....	86,000	....	....	....	541,000
Other Cy.	732,000	911,000	464,000	835,000	526,000	576,000	555,000	661,000	347,000	633,000	783,000	959,000	7,982,000
TOTAL	31,639,000	10,855,000	9,009,000	23,041,000	11,332,000	15,170,000	16,247,000	14,458,000	15,195,000	22,520,000	19,375,000	14,479,000	203,320,000

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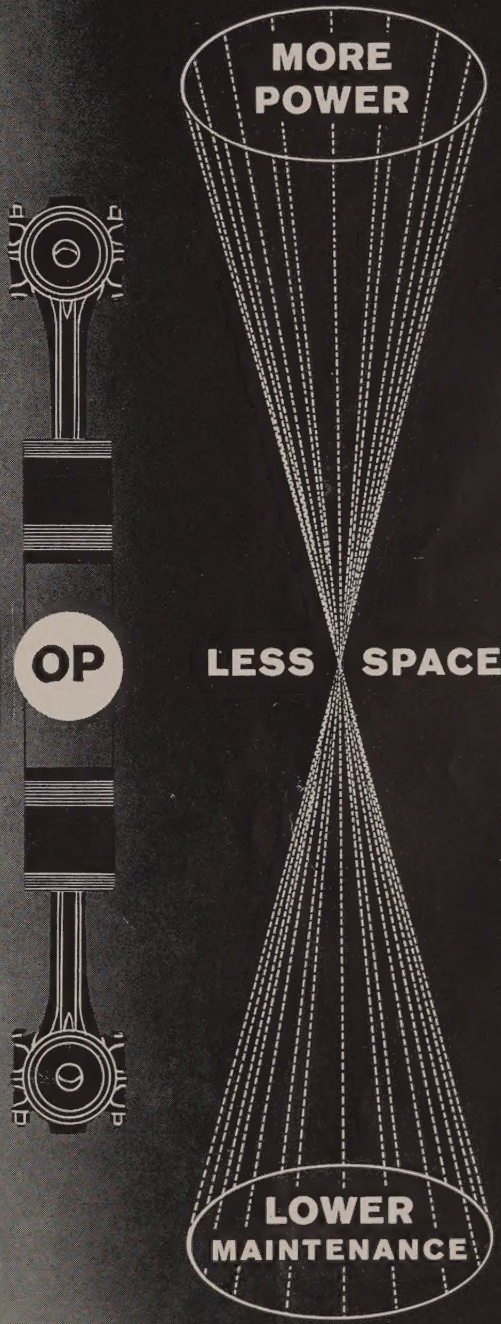

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Type	Recorder	Indicator
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Presentation	6½ x 3⅞" viewing window	8" diameter dial
Mounting	Bulkhead	Bulkhead
Transducer	Streamlined, rubber-encased	Streamlined, rubber-encased

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